AREA OF ADDITION AREA OF REMODE AREA OF OPEN YARD AD AREA DRAIN BACKFLOW PREVENTION BV BALL VALVE BIO RETENTION BASIN BRI BIO RETENTION INVERT BIO RETENTION OVERFLOW СВ CATCH BASIN CHANNEL/TRENCH DRAIN CO CLEANOUT DECOMPOSED GRANITE DECK DRAIN DEMOLISH DETENTION ZONE (DZ) DZI DETENTION ZONE INVERT DOWNSPOUT DS DRAINAGE SLOPE LA PLATA DRIP IRRIGATION EASEMEN^T ELECTRIC METER **ELEVATION (DEMO** ~ XXX -ELEVATION (E) XXX ELEVATION (N) ELECTRIC/PHONE/CATV EXCAVATE & COMPACT (E&C) EX EXCAVATION DEPTH WM GM PARKING STRIP 90002 FR 12.0 9000002906 FIBER ROLL SIDEWALK FINISHED FLOOR ELEVATION N 51° 59' 20" W 60 00' FINISHED GRADE ELEVATION FIRE HYDRANT FREEBOARD GM GAS METER — G —— | GAS PIPE K04 GROUND VAULT GV HH **HANDHOLE** LANDSCAPE LIMIT OF DISTURBED AREA K14 — ₩20-FT SETBACK OVERFLOW INVERT OVERHEAD WIRES PAP PLP (E):ONE-STORY:PRIMARY:RESIDENTIAL:UNIT (OWNER'S:UNIT) Gross: 1,512 sq.ft. Net:1:449 sq.ft PP <u>--P-</u> DRIVEWAY REDUCED PRESSURE EM 200A REDUCED PRESSURE/ BACKFLOW PREVENTION K13 - ↓ • RIP-RAP TO PREVENT EROSION OUGH GRADE ELEVATION SMH EWER MANHOLE - ss 4**.**00— SEWER SANITARY SHUTOFF VALVI SIDEWALK - SLT -X SILT FENCE SLOPE OF GRADE 5% MIN FOR 10-FT AT FOUNDATION |K09 |-SPILLWAY INVERT SE XXX SPOT ELEVATION (E) ACCESSORY DWELLING UNIT STORAGE K05 SE XXX SPOT ELEVATION (N) Gross: 74 sq:ft: SDMH STORM DRAIN MANHOLE -SW4.00-STORMWATER (E) -SW4.00---ISTORMWATER (N Gross: 300 sq ft TOC TOP OF CURB :Net:300 saft TOD TOP OF DECK ACCESSORY DWELLING UNIT Gross: 381 sq ft TOF TOP OF FENCE Net:331:sq ft TOG TOP OF GRATE TOP OF PAVEMENT (B/T, CONC, TILE, ETC) TOW TOP OF WALL UDS UPPER DOWNSPOUT 6-FT UTILITY EASEMENT UNO UNLESS NOTED OTHERWISE WM WATER METER WATER SUPPLY PIPE COLD WATER SUPPLY PIPE HOT SITE PLAN - WD 4.0 - WALL DRAIN WETTED INVER

SITE PLAN LEGEND

MARCHETTIADU

221 LA PLATA, SANTA BARBARA, CA

BMP SCOPE OF WORK

BMP KEYNOTES

GENERAL NOTES -

K06

INSTALL SILT FENCE THROUGHOUT RAINY

SILT FENCE, PER 3-A-501 - CIVIL-SILT FENCE

SECTION & 1A-501CIVIL-SILT FENCE ASSY

SILT FENCE TO FOLLOW LINE OF TERRAIN

WITH ONLY THE 'RETURNS' AT EACH END

CONCRETE WASHOUT AREA AS PER 7-A-501-

GENERAL RESIDENTIAL NOTES PER A-001

GENERAL PLUMBING NOTES PER A-001

GENERAL MECHANICAL NOTES PER A-001

GENERAL ELECTRICAL NOTES PER A-001

UNO EXTERIOR FINISHES @ GRADE PER 4-A-

501-CONS-EXTERIOR FINISHES @ GRADE

(N) 60A SUBPANEL WITH SUB-METERING (N) 4" STORM WATER PIPE TO DAYLIGHT AT

DOWNSPOUT PER 8-A-501-CIVIL-DOWNSPOUT

AS BUILT 6' SMOOTH CEDAR FENCE, LEFT IN A

REMOVE APRON & INFILL @ CURB PER CITY

3 PALM TREES TO BE REMOVED FOR SITE

(E) IMPERVIOUS CONCRETE DRIVEWAY TO

FOR FUTURE EV CHARGING STATION

SIX PHOTOVOLTAIC PANELS TO BE INSTALLED

IN PRIMARY RESIDENDE ROOF AND PROVIDE

300 SF

397 SF

454 SF

+57 SF

TWO TANDEM PARKING SPACES FOR

NATURAL CONDITION TO WEATHER

95 GALLONS TRASH, RECYCLE AND

10'X10' VISIBILITY TRIANGLE

GREENWASTE CONTAINERS

(N) ON-DEMAND WATER HEATER

RUNNING PERPENDICULAR TO GRADE

CIVIL-CONCRETE WASHOUT

(N) HEAT PUMP

THE STREET CURB

@ CATCHBASIN

DEVELOPMENT

PRIMARY RESIDENCE

REMOVE DRIVEWAY GATE

<u>IMPERMEABLE AREAS</u>

OF PAVER DRIVEWAY

NET CHG IMPERMEABLE

DEMO CARPORT

DEMO PORTION

2.0 PROVIDE CONCRETE WASHOUT AREA

GN- GENERAL NOTES

- ALL CONSTRUCTION SHALL CONFORM TO THE 2019 CBC, 2019 CRC, 2019 CMC, 2019 CEC, 2019 CPC, 2019 CALIFORNIA GREEN BUILDING STANDARDS CODE, 2019 CFC, 2019 CA ENERGY COMMISSION STANDARDS & ALL CITY OF SANTA BARBARA AMENDMENTS AS ADOPTED IN SANTA BARBARA CITY ORDINANCE 5780.
- MARBORG INDUSTRIES SHALL BE USED FOR ALL CONSTRUCTION WASTE AND RECYCLING
- UNLESS NOTED OTHERWISE, ALL MATERIALS AND EQUIPMENT TO BE INSTALLED PER THE APPLICABLE PROVISIONS OF THESE DOCUMENTS AND THE MANUFACTURER'S INSTALLATION INSTRUCTIONS
- THESE DOCUMENTS CONVEY MINIMUM CONSTRUCTION REQUIREMENTS AND ARE TO BE USED WHERE THE APPLICABLE CONDITIONS OCCUR. MORE STRINGENT REQUIREMENTS STIPULATED WITHIN RELEVANT MANUFACTURER'S INSTALLATION INSTRUCTIONS WILL SUPERSEDE
- ALL WORK TO BE PERFORMED BY LICENSED & INSURED CONTRACTOR
- THE CONTRACTOR IS RESPONSIBLE FOR MEANS, METHODS, AND TECHNIQUES FOR CONSTRUCTION
- ALL OSHA REGULATIONS SHALL BE FOLLOWED. GENERAL CONTRACTOR & EACH SUB-CONTRACTOR RESPONSIBLE FOR JOB-
- EACH SUBCONTRACTOR IS RESPONSIBLE FOR DEPOSITING DEBRIS RESULTING FROM THEIR WORK IN THE JOB-SITE
- 9.0 ALL DIMENSIONS, UNLESS OTHERWISE INDICATED, ARE TO FACE OF STUD, CONCRETE, OR MASONRY
- SEE FORMS CF-1R & MF-1R SPECIFYING THE REQUIRED/MANDATORY ENERGY FEATURES FOR: WALL/CEILING INSULATION, WINDOW AREAS AND TYPES, HVAC SYSTEMS AND EFFICIENCY, DUCT INSULATION AND TESTING, LIGHTING TYPE AND SWITCHING, AND PIPE/HEATER INSULATION. PROVIDE COMPLETED FORM CF-6R UPON FINAL INSTALLATION OF ALL ENERGY
- PROJECTS WITH ZONING MODIFICATION APPROVALS, WITHIN 12" OF A SETBACK, OR WHERE CONDITIONS WARRANT, MAY REQUIRE A SURVEY TO VERIFY PROPOSED FOOTPRINT OF THE STRUCTURE PRIOR TO FOOTING INSPECTION. PROVIDE SURVEYOR VERIFICATION TO INSPECTOR IF REQUESTED BY BUILDING OFFICIAL
- 12.0 UNO, ALL REFERENCED STRUCTURAL HARDWARE TO BE FROM SIMPSON STRONG-TIE (ESR-2523)
- AT THE TIME OF FINAL INSPECTION, AN OPERATION AND MAINTENANCE MANUAL, COMPACT DISC, OR WEB BASED REFERENCE SHALL BE PLACED IN THE BUILDING. THE MANUAL SHALL INCLUDE ALL OF THE ITEMS LISTED ON THE CALIFORNIA GREEN BUILDING STANDARDS CODE SECTION 4.410.1 [CGBSC 4.410]

BMP- STORMWATER BEST MANAGEMENT PRACTICES

THE SITE BY THE FORCES OF WIND OR WATER.

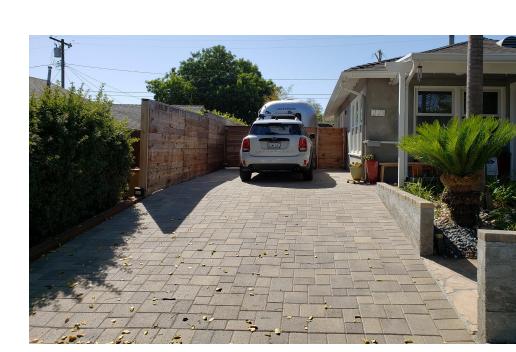
- DETAILED INFORMATION RELATING TO THE BEST MANAGEMENT PRACTICES SPECIFIED BELOW AND ELSEWHERE WITHIN THIS DOCUMENT CAN BE FOUND IN THE CALIFORNIA STORMWATER BMP HANDBOOK; AVAILABLE FOR DOWNLOAD AT
- WWW.CABMPHANDBOOKS.COM & http://www.dot.ca.gov/hg/construc/stormwater/manuals.htm GENERAL CONTRACTORS/CONTRACTORS AS APPLICABLE ARE RESPONSIBLE FOR THE TRAINING OF PERSONNEL IN THE PROPER
- DISPOSTION OF CONSTRUCTION WASTE & IMPLEMENTATION OF BMPS
- ERODED SEDIMENTS AND OTHER POLLUTANTS MUST BE RETAINED ON SITE AND MAY NOT BE TRANSPORTED FROM THE SITE VIA
- SHEET FLOW, SWALES, AREA DRAINS, NATURAL DRAINAGE COURSES OR WIND. STOCKPILES OF EARTH AND OTHER CONSTRUCTION RELATED MATERIALS MUST BE PROTECTED FROM BEING TRANSPORTED FROM
- FUELS, OILS, SOLVENTS AND OTHER TOXIC MATERIALS MUST BE STORED IN ACCORDANCE WITH THEIR LISTING AND ARE NOT TO CONTAMINATE THE SOIL AND SURFACE WATERS. ALL APPROVED STORAGE CONTAINERS ARE TO BE PROTECTED FROM THE WEATHER. SPILLS MAY NOT BE WASHED INTO THE DRAINAGE SYSTEM.
- EXCESS OR WASTE CONCRETE MAY NOT BE WASHED INTO THE PUBLIC WAY OR ANY OTHER DRAINAGE SYSTEM. PROVISIONS MUST BE MADE TO RETAIN CONCRETE WASTES ON SITE UNTIL THEY CAN BE DISPOSED OF AS A SOLID WASTE. TRASH AND CONSTRUCTION RELATED SOLID WASTES MUST BE DEPOSITED INTO A COVERED RECEPTACLE TO PREVENT
- SEDIMENTS AND OTHER MATERIAL MAY NOT BE TRACED FROM THE SITE BY VEHICLE TRAFFIC. THE CONSTRUCTION ENTRANCE ROADWAYS MUST BE STABILIZED SO AS TO INHIBIT SEDIMENTS FROM BEING DEPOSITED INTO THE PUBLIC WAY. ACCIDENTAL
- DEPOSITIONS MUST BE SWEPT UP IMMEDIATELY AND MAY NOT BE WASHED DOWN BY RAIN OR OTHER MEANS. ANY SLOPES WITH DISTURBED SOILS OR DEMANDED OF VEGETATION MUST BE STABILIZED SO AS TO INHIBIT EROSION BY WIND AND
- PRESERVE EXISTING VEGETATION AT AREAS ON THE SITE WHERE NO CONSTRUCTION ACTIVITY IS PLANNED OR WILL OCCUR AT A
- WATER USED DURING CONSTRUCTION ACTIVITIES IS TO BE USED IN A MANNER THAT AVOIDS CAUSING EROSION AND/OR THAT
- TRANSPORTS POLLUTANTS OFF SITE DO NOT CLEAN, FUEL, OR MAINTAIN VEHICLES ON-SITE, EXCEPT IN DESIGNATED AREA WHERE WASH WATER IS CONTAINED & TREATED

SI- SPECIAL INSPECTIONS & STRUCTURAL OBSERVATIONS

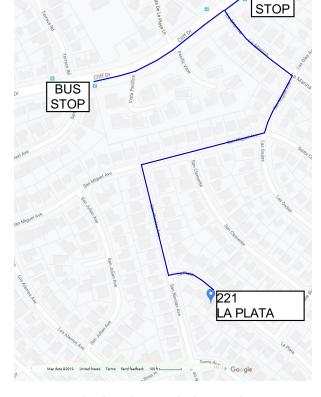
- 1.0 ALL SPECIAL INSPECTIONS SHALL CONFORM TO CHAPTER 17 OF THE CALIFORNIA BUILDING CODE
- CONTRACTOR TO OBTAIN APPROPRIATE SPECIAL INSPECTION/OBSERVATION REPORT DOCUMENTATION PRIOR TO REQUESTING AN INSPECTION BY THE LOCAL BUILDING AUTHORITY
- WINDWARD TO OBSERVE REINFORCEMENT STEEL PRIOR TO CONCRETE PLACEMENT
- WINDWARD TO OBSERVE FRAMING & SHEAR WALL NAILING AFTER PLUMBING, MECHANICAL & ELECTRICAL ROUGH-IN WORK HAS BEEN COMPLETED
- 5.0 CALL 48 HOURS IN ADVANCE TO SCHEDULE INSPECTIONS

SPECIAL INSPECTION AGENCIES

PACIFIC MATERIALS LABORATORIES 35 SOUTH LA PATERA LANE GOLETA, CALIFORNIA 93117 TEL: 805.964.6901 FAX: 805.964.6239



<u>(E)</u> 6' FENCE



PROJECT DATA

SCOPE OF WORK -NEW ACCESSORY DWELLING UNIT TO REPLACE EXISTING CARPORT (E) FENCE AT EASTERN PROPERTY LINE TO REMAIN - UNDER A SEPARATE PERMIT REMOVAL OF SECOND APRON & (N) CITY COMPLIANT CURB - UNDER A SEPARATE PERMIT DEMOLITION OF THE AS-BUILT DRIVEWAY GATE

INTALLATION OF NEW SIX PHOTOVOLTAICSOLAR PANELS AND PROVIDE FOR FUTURE EV CHARGING STATION REMOVAL OF THREE PALM TREES IN THE REAR YARD

INSTALLATION OF A NEW AIR CONDITIONING UNIT, TO SERVE THE ACCESSORY DWELLING UNIT SEWER LATERAL TO BE REPLACED - UNDER SEPARATE PERTMIT

LOCATION: 221 LA PLATA

LAND USE ZONE DISTRICT: E-3/SD-3

APN: 045-201-003

HEIGHT: 15'

JURISDICTION: CITY OF SANTA BARBARA OCCUPANCY CLASSIFICATION (E): RS-6 (R1)

LOT SIZE: 6,000 SQ FT CONSTRUCTION TYPE: V-B

AVERAGE SLOPE OF PROPERTY: 5 % FLOOD ZONE: NO

STORIES: 1 HIGH FIRE HAZARD AREA: NO

PARKING SPACES (E) 1 COVERED CARPORT 2 UNCOVERED SPACES PRIMARY RESIDENCE 2 UNCOVERED (TANDEM PARKING) ARE ALLOWABLE UNDER

SPINKLERS: NO

OCCUPANCY CLASSIFICATION (P): RS-6 (R1)

SECTION 65852.2 ADU/ JADU 0 COVERED 0 UNCOVERED TOTAL PROPOSED PARKING SPACES 2 PROPOSED UNCOVERED

NOTE: PROPERTY IS LOCATED WITHIN 0.5 MILES WALKING DISTANCE TO TWO SBMTD BUS STATIONS ON CLIFF DRIVE, SEE VICINITY MAP AND BUS STOP LOCATION BELOW

PROPOSED GRADING: **OUTSIDE MAIN BLDG FOOTPRINT** 0 CU. YD 0 CU. YD UNDER MAIN BLDG FOOTPRINT 0 CU. YD 0 CU. YD

0 CU.YD 0 CU.YD TOTAL PROJECT STATISTICS-STATUS LEVEL DESCRIPTION **GROSS SF** Existing

1ST-FLR (E) ONE-STORY PRIMARY RESIDENTIAL UNIT (OWNER'S UNIT) 1,449 1,512 1,512 sq ft 1,449 sq ft 1ST-FLR (P) ACCESSORY DWELLING UNIT NON-HABITABLE 1ST-FLR (P) ACCESSORY DWELLING UNIT STORAGE

405 sq ft 455 sq ft To Be Demolished NON-HABITABLE 1ST-FLR (D) CARPORT 300 sq ft 300 sq ft 2,154 sq ft 2,267 sq ft

PROJECT DESIGN TEAM

CLIENT: DAVID MARCHETTI 221 LA PLATA SANTA BARBARA, CA 93109 EMAIL: DAVIDMARCHETTIREALTY@GMAIL.COM **DESIGN & ENGINEERING:** WINDWARD DESIGN SERVICES, LLC 1825 STATE STREET SUITE 102 SANTA BARBARA, CA 93101 TEL: 805.845.6601 EMAIL: KEN@WINDWARDENG.COM

F.A.R. Calculator

Instructions: Enter the information in the white boxes below. The spreadsheet will calculate the proposed FAR (floor area ratio), the 100%

The Net Lot Area does not include any Public Road Easements or Public Road Right-of-Way areas. The proposed TOTAL Net FAR Floor

ENTER Project Address:	221 LA PLATA			
Is there a basement or cellar existing or proposed?	No			
ENTER Proposed TOTAL Net FAR Floor Area (in sq. ft.):	1,854			
ENTER Zone ONLY from drop-down list:	E-3			
ENTER Net Lot Area (in sq. ft.):	6,000			
Is the height of existing or proposed buildings 17 feet or greater?	No			
Are existing or proposed buildings two stories or greater?	No			
The FAR Requirements are:	GUIDELINE**			
ENTER Average Slope of Lot:	5.00%			
Does the height of existing or proposed buildings exceed 25 feet?	No			
Is the site in the Hillside Design District?	No			
Does the project include 500 or more cu. yds. of grading outside the main building footprint?	No			
An FAR MOD is not required	per SBMC §28.15			
FLOOR AREA RATIO (FAR):	0.309			
Lot Size Range:	4,000 - 9,999 sq.ft.			
	1,200 + (0.25 x lot size in sq.ft.)			
MAX FAR Calculation (in sq. ft.):	1,200 + (0.25 x lot size in sq.ft.)			
MAX FAR Calculation (in sq. ft.): 100% MAX FAR:	1,200 + (0.25 x lot size in sq.ft.) 0.450			
\ 1 /	, , ,			

**NOTE: If your project is located on a site with multiple or overlay zones, please contact Planning Staff to confirm whether the FAR limitations are "Required" or "Guideline".

The 1854 square foot proposed total is 69% of the MAX FAR.*

80% of MAX FAR (in sq. ft.):

* NOTE: Percentage total is rounded up

VICINITY MAP

ENTER Acreage to Convert to square footage 1.00 Net Lot Area (in sq. ft.): 43560 221 La Plata, Santa Barbara, CA 93109

moving forward

PROJECT MARCHETTI ADU 221 LA PLATA SANTA BARBARA, CA 93109

1825 STATE STREET STE 102

E: INFO@WINDWARDENG.COM

SANTA BARBARA, CA 93101

T: 805.845.6601

CLIENT DAVID MARCHETTI

221 LA PLATA SANTA BARBARA, CA 93109 SHEET INDEX

GOVERNMENT CODE

G-001 GENERAL AND SITE PLAN G-002 ENERGY ANALYSIS G-003 ENERGY ANALYSIS G-004 GREEN CODE G-005 GENERAL NOTES A-101 PLAN ELEV SECT A-601 SCHEDULES

S-001 GENERAL S-101 FOUNDATION/ 1ST STORY FRAMING PLAN S-501 CONCRETE DETAILS S-502 CONCRETE DETAILS S-503 FRAMING DETAILS

S-504 FRAMING DETAILS S-505 FRAMING DETAILS S-506 SW & SHEATHING DETAILS P-101 PLUMBING PLAN

M-101 MECH PLAN

4/9/2020

(E) FENCE SUBMITTA

DART RESUBMITTAL

RESUBMITTAL

DATES

03/03/2020

03/03/2020

03/18/2020

SHEET

SCALE AS NOTED

CREATED BY: WDS

GENERAL AND SITE PLAN

1/3/2020

Calculation Description: Title 24 Analysis Input File Name: Marchetti T24 no AC.ribd19x

		,									
GENER	AL INFORMATION										
01	Project Name	Marchetti ADU	archetti ADU								
02	Run Title	Title 24 Analysis									
03	Project Location	211 La Plata									
04	City	Santa Barbara	05	Standards Version	2019						
06	Zip code	93109	07	Software Version	EnergyPro 8.0						
08	Climate Zone	6	09	Front Orientation (deg/ Cardinal)	225						
10	Building Type	SingleFamily	11	Number of Dwelling Units	1						
12	Project Scope	NewConstruction	13	Number of Bedrooms	1						
14	New Cond. Floor Area (f <mark>t²)</mark>	0	15	Number of Stories	1						
16	Existing Cond. Floor Area <mark>(ft²)</mark>	n/a	17	Fenestration Average U-factor	0.296						
18	Total Con <mark>d. Floor Area (</mark> ft ²)	454	19	Glazing Percentage (%)	25.22%						
20	ADU Bed <mark>room</mark> Count	0	21	ADU Conditioned Floor Area	0						
		4 3 1 -									
COMPL	DMPLIANCE RESULTS										

COMPLIANCE RE	SULTS
01	Building Complies with Computer Performance
02	This building incorporates features that require field testing and/or verification by a certified HERS rater under the supervision of a CEC-approved HERS provider.
03	This building incorporates one or more Special Features shown below

Registration Number:
220-P010037464C-000-000-0000000-0000
CA Building Energy Efficiency Standards - 2019 Residential Compliance

Registration Date/Time: 2020-03-24 08:53:16 Report Version: 2019.1.100 Schema Version: rev 20190401

CalCERTS inc. Report Generated: 2020-03-24 08:48:07

CERTIFICATE OF COMPLIANCE		CF1R-PRF-01E
Project Name: Marchetti ADU	Calculation Date/Time: 2020-03-24T08:47:18-07:00	(Page 4 of 9)
Calculation Description: Title 24 Analysis	Input File Name: Marchetti T24 no AC.ribd19x	

PAQUE SURFACES												
01	02	03	04	05	06	07	08					
Name	Zone	Construction	Azimuth	Orientation	Gross Area (ft ²)	Window and Door Area (ft2)	Tilt (deg)					
Front Wall	Living Room	R-19 Wall	225	Front	196	96	90					
Left Wall	Living Room	R-19 Wall	315	Left	112	0	90					
Right Wall	Living Room	R-19 Wall	135	Right	112	0	90					
Left Wall 2	Bedroom	R-19 Wall	315	Left	104	0	90					
Right Wall 2	Bedroom	R-19 Wall	135	Right	104	12.5	90					
Rear Wall	Bedroom	R-19 Wall	45	Back	173	0	90					

OPAQUE SURFAC	CES - CATHEDRAL (CEILINGS								
01	02	03	04	05	06	07	08	09	10	11
Name	Zone	Туре	Azimuth	Orientation	Area (ft²)	Skylight Area (ft ²)	Roof Rise (x in 12)	Roof Reflectance	Roof Emittance	Cool Roof
Roof	Living Room	R-38 <mark>Roof N</mark> o Attic	180	Back	185	6	D E B	0.1	0.85	No
Roof 2	Bedroom	R-38 Roof No Attic	180	Back	269	0	1	0.1	0.85	No

,	,		,										
FENESTRATION / GLAZING													
01	02	03	04	05	06	07	08	09	10	11	12	13	14
Name	Туре	Surface	Orientation	Azimuth	Width (ft)	Height (ft)	Mult.	Area (ft²)	U-factor	U-factor Source	SHGC	SHGC Sourc e	Exterior Shading
Bifold Door	Window	Front Wall	Front	225			1	96	0.29	NFRC	0.21	NFRC	Bug Screen
W01	Window	Right Wall 2	Right	135			1	12.5	0.3	NFRC	0.23	NFRC	Bug Screen
Skylight	Skylight	Roof	Back	45			1	6	0.38	NFRC	0.25	NFRC	None

Registration Number	:
	220-P010037464C-000-000-0000000-0000
CA Building Energy Ef	ficiency Standards - 2019 Residential Compliance

Registration Date/Time: 2020-03-24 08:53:16 Report Version: 2019.1.100 Schema Version: rev 20190401

CalCERTS inc. Report Generated: 2020-03-24 08:48:07

CERTIFICATE OF COMPLIANCE CF1R-PRF-01E Calculation Date/Time: 2020-03-24T08:47:18-07:00 (Page 7 of 9) Project Name: Marchetti ADU Input File Name: Marchetti T24 no AC.ribd19x Calculation Description: Title 24 Analysis

HVAC - HEATING UNIT TYPES					
01	02	03	04	05	
Name	System Type	Number of Units	Heating Efficiency Type	Efficiency	
Heating Component 1	Central gas furnace	1	AFUE	80	

HVAC - COOLING UNIT 1	TYPES						
01	02	03	04	05	06	07	08
Name	System Type	Number of Units	Efficiency EER	Efficiency SEER	Zonally Controlled	Mulit-speed Compressor	HERS Verification
Cooling Component 1	No Cooling	1			Not Zonal	Single Speed	n/a

HVAC - DISTRIBUTION SY	STEMS										
01	02	03	04	05	05 06 07		08	09	10	11	12
			t Ins. alue	Duct Lo	ocation	Surfac	e Area				
Name	Туре	Design Type	Supply	Return	Supply	Return	Supply	Return	Bypass Duct	Duct Leakage	HERS Verification
Air Distribution System 1	Conditioned space-entirely	Non-Verified	R-6	R-6	Conditioned Zone	Conditioned Zone	n/a	n/a	No Bypass	Sealed and Tested	Air Distribution System 1-hers-dist

_									
	HVAC DISTRIBUTION	- HERS VERIFICATION							
	01	02	03	04	05	06	07	08	09
	Name	Duct Leakage Verification	Duct leakage target (%)	Verified Duct Location	Verified Duct Design	Buried Ducts	Deeply Buried Ducts	Low-leakage Air Handler	Low Leakage Ducts Entirely in Conditioned Space
Ī	Air Distribution System 1-hers-dist	Yes	5	Required	Not Required	Not Required	Credit not taken	Not Required	No

CERTIFICATE OF COMPLIANCE Project Name: Marchetti ADU Calculation Description: Title 24 Analysis

CF1R-PRF-01E Calculation Date/Time: 2020-03-24T08:47:18-07:00 (Page 2 of 9) Input File Name: Marchetti T24 no AC.ribd19x

ENERGY DESIGN RATING	Franklin	in Batings	Compliana	a Manusius						
	Energy Des	ign katings	Complianc	e iviargins						
	Efficiency¹ (EDR)	Total² (EDR)	Efficiency¹ (EDR) Total² (ED							
Standard Design	53.7	23.8								
Proposed Design	53.5 22.2		0.2	1.6						
	RESULT: 3:	COMPLIES								
¹ Efficiency EDR includes improvements to the building envelope and more efficient equipment ² Total EDR includes efficiency and demand response measures such as photovoltaic (PV) systems and batteries ³ Building complies when efficiency and total compliance margins are greater than or equal to zero										
Standard Design PV Capacity: 1.47 kWdc										

ENERGY USE SUMMARY											
Energy Use (kTDV/ft²-yr)	Standard Design	Proposed Design	Compliance Margin	Percent Improvement							
Space Heating	5.6	7.79 D E	-2.19	-39.1							
Space Cooling	18.9	21.23	-2.33	-12.3							
IAQ Ventilation	3.69	3.69	0	0							
Water Heating	39.47	34.32	5.15	13							
Self Utilization Credit	n/a	0	0	n/a							
Compliance Energy Total	67.66	67.03	0.63	0.9							

Proposed PV system downsized to 1.48 kWdc (a factor of 0.923) due to cap of 1 x proposed design electricity use

REQUIRED PV SYSTEMS										
01	02	03	04	05	06	07	08	09	10	11
DC System Size (kWdc)	Exception	Module Type	Array Type	Power Electronics	CFI	Azimuth (deg)	Tilt Input	Array Angle (deg)	Tilt: (x in 12)	Inverter Eff. (%)
1.48	NA	Standard	Fixed (roof mount)	none	false	225	TiltDeg rees	18.43	4	99

Registration Number:
220-P010037464C-000-000-0000000-0000
CA Building Energy Efficiency Standards - 2019 Residential Compliance

Registration Date/Time: **HERS Provider:** 2020-03-24 08:53:16 CalCERTS inc. Report Version: 2019.1.100 Report Generated: 2020-03-24 08:48:07 Schema Version: rev 20190401

CERTIFICATE OF COMPLIANCE Project Name: Marchetti ADU Calculation Date/Time: 2020-03-24T08:47:18-07:00 Calculation Description: Title 24 Analysis Input File Name: Marchetti T24 no AC.ribd19x

SLAB FLOORS						
01	02	03	04	05	06	07
Name	Zone	Area (ft2)	Perimeter (ft)	Edge Insul. R-value and Depth	Carpeted Fraction	Heated
Slab-on-Grade	Living Room	185	41	None	80%	No
Slab-on-Grade 2	Bedroom	269	45	None	80%	No

01	02	03	04		06	07	08	
Construction Name	Surface Type	Construction Type	Framing	Total Cavity R-value	Interior / Exterior Continuous R-value	U-factor	Assembly Layers	
R-19 Wall	Exterior Walls	Wood Framed Wall	2x6 @ 16 in. O. C.	R-19	None / None	0.074	Inside Finish: Gypsum Board Cavity / Frame: R-19 in 5-1/2 in. (R-1 2x6 Exterior Finish: 3 Coat Stucco	
R-38 Roof No Attic	Cathedral Ceilings	Wood Framed Ceiling	2x12 @ 16 in. O. C.	R-38	None / None	0.03	Roofing: Light Roof (Asphalt Shingl Roof Deck: Wood Siding/sheathing/decking Cavity / Frame: R-38 / 2x12 Inside Finish: Gypsum Board	
R-0 Wall	Interior Walls	Wood Framed Wall	2x4 @ 16 in. O. C.	R-0	None / None	0.277	Inside Finish: Gypsum Board Cavity / Frame: no insul. / 2x4 Other Side Finish: Gypsum Board	

BUILDING ENVELOPE - HERS VERIFICATION									
01	02	03	04						
Quality Insulation Installation (QII)	Quality Installation of Spray Foam Insulation	Building Envelope Air Leakage	CFM50						
Not Required	Not Required	Not Required	n/a						

Registration Number:
220-P010037464C-000-000-0000000-0000
CA Building Energy Efficiency Standards - 2019 Residential Compliance

Registration Date/Time: 2020-03-24 08:53:16 Report Version: 2019.1.100 Schema Version: rev 20190401

CalCERTS inc. Report Generated: 2020-03-24 08:48:07

CF1R-PRF-01E

(Page 5 of 9)

CERTIFICATE OF COMPLIANCE Project Name: Marchetti ADU Calculation Description: Title 24 Analysis

CF1R-PRF-01E Calculation Date/Time: 2020-03-24T08:47:18-07:00 (Page 8 of 9) Input File Name: Marchetti T24 no AC.ribd19x

HVAC - FAN SYSTEMS												
01		02			03	04						
Name		Туре		Fan Pov	ver (Watts/CFM)	Name						
HVAC Fa	n 1	HVAC Fan		0.45		n/a						
IAQ (INDOOR AIR QUALITY) FAN	IAQ (INDOOR AIR QUALITY) FANS											
01 02		03		04	05	06						
Dwelling Unit	Dwelling Unit IAQ CFM		IAC) Fan Type	IAQ Recovery Effectiveness (9	6) HERS Verification						
SFam IAQVentRpt	28	0.25		Default	0	Yes						



REQUIRED SPECIAL FEATURES Non-standard duct location (any location other than attic) Calculation Date/Time: 2020-03-24T08:47:18-07:00 Input File Name: Marchetti T24 no AC.ribd19x

CF1R-PRF-01E (Page 3 of 9)

The following are features that must be installed as condition for meeting the modeled energy performance for this computer analysis.

EATURE SUMMARY
United the state of the first war that we are

The following is a summary of the features that must be field-verified by a certified HERS Rater as a condition for meeting the modeled energy performance for this computer analysis. Additional detail is provided in the building tables below. Registered CF2Rs and CF3Rs are required to be completed in the HERS Registry

Building-level Verifications: Indoor air quality ventilation Kitchen range hood Cooling System Verifications: -- None --Heating System Verifications:

CERTIFICATE OF COMPLIANCE

Project Name: Marchetti ADU

Calculation Description: Title 24 Analysis

HVAC Distribution System Verifications: Duct leakage testing

BUILDING - FEATURES INFORMATION

DHW Sys 1

Ducts located entirely in conditioned space confirmed by duct leakage testing omestic Hot Water System Verifications: -- None --

01	02	03	04	05	06	07			
Project Name	Conditioned Floor Area (ft ²)	Number of Dwelling Units	Number of Bedrooms	Number of Zones	Number of Ventilation Cooling Systems	Number of Water Heating Systems			
Marchetti ADU	454	1	1	2	0	1			
ZONE INFORMATION									

ZONE INFORMATION						
01	02	03	04	05	06	07
Zone Name	Zone Type	HVAC System Name	Zone Floor Area (ft ²)	Avg. Ceiling Height	Water Heating System 1	Water Heating System 2
Living Room	Conditioned	HVAC System1	185	10	DHW Sys 1	N/A
Bedroom	Conditioned	HVAC System1	269	10	DHW Sys 1	N/A

220-P010037464C-000-000-0000000-0000 CA Building Energy Efficiency Standards - 2019 Residential Compliance

Registration Date/Time: 2020-03-24 08:53:16 Report Version: 2019.1.100 Schema Version: rev 20190401

HERS Provider:

CalCERTS inc. Report Generated: 2020-03-24 08:48:07

CF1R-PRF-01E

(Page 6 of 9)

CERTIFICATE OF COMPLIANCE Project Name: Marchetti ADU Calculation Date/Time: 2020-03-24T08:47:18-07:00 Calculation Description: Title 24 Analysis Input File Name: Marchetti T24 no AC.ribd19x

Domestic Hot Water Standard Distribution

WATER HEATING SYSTEM	1S					
01	02	03	04	05	06	07
Name	System Type	Distribution Type	Water Heater Name (#)	Solar Fraction (%)	Compact Distribution	HERS Verification

	,-	,									
NATER HEATERS									,		
01	02	03	04	05	06	07	08	09	10	11	12
Name	Heating Element Type	Tank Type	# Units	Tank Vol. (gal)	Energy Factor or Efficiency	Input Rating or Pilot	Tank Insulation R-value (Int/Ext)	Standby Loss or Recovery Eff.	11st Hr. Rating	NEEA Heat Pump Brand or Model / Other	Tank Location or Ambient Condition
		6	i		İ	200000					

WATER HEATING - HERS	VERIFICATION			KID.			
01	02	03	04	05	06	07	08
Name	Pipe Insulation	Parallel Piping	Compact Distribution	Compact Distribution Type	Recirculation Control	Central DHW Distribution	Shower Drain Water Heat Recovery
DHW Sys 1 - 1/1	Not Required	Not Required	Not Required	None	Not Required	Not Required	Not Required

SPACE CONDITIONIN	NG SYSTEMS							
01	02	03	04	05	06	07	08	09
Name	System Type	Heating Unit Name	Cooling Unit Name	Fan Name	Distribution Name	Required Thermostat Type	Heating Equipment Count	Cooling Equipment Count
HVAC System1	Heating and cooling system other	Heating Component 1	Cooling Component 1	HVAC Fan 1	Air Distribution System 1	Setback	1	1

Registration Number: 220-P010037464C-000-000-0000000-0000 CA Building Energy Efficiency Standards - 2019 Residential Compliance Registration Date/Time: 2020-03-24 08:53:16 Report Version: 2019.1.100 Schema Version: rev 20190401

CalCERTS inc. Report Generated: 2020-03-24 08:48:07

CERTIFICATE OF COMPLIANCE CF1R-PRF-01E Calculation Date/Time: 2020-03-24T08:47:18-07:00 (Page 9 of 9) Project Name: Marchetti ADU Input File Name: Marchetti T24 no AC.ribd19x Calculation Description: Title 24 Analysis

Documentation Author Name: Ken Dickson Company: Windward Engineering Address: 1825 State St City/State/Zip: Phone: Poster Parks are CALCOMA.	accurate and complete.	e and complete.	
Company: Windward Engineering Address: 1825 State St City/State/Zip: Signature Date: 2020-03-24 08:53:16 CEA/ HERS Certification Identification (If applicable): Phone:	D		Documentation Author Signature:
Windward Engineering 2020-03-24 08:53:16 Address: 1825 State St CEA/ HERS Certification Identification (If applicable): Phone:			
Address: 1825 State St CEA/ HERS Certification (If applicable): Phone:	Si		Signature Date:
1825 State St City/State/Zip: Phone:			2020-03-24 08:53:16
City/State/Zip: Phone:	C		CEA/ HERS Certification Identification (If applicable):
005 045 0004	P!		Phone:
Santa Barbara, CA 93101 805-845-6601			805-845-6601
RESPONSIBLE PERSON'S DECLARATION STATEME <mark>NT</mark>			-

Docnoncik	hla Dacignar Nama:
	calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
3.	The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, workshee
2.	I certify that the energy features and performance specifications identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regula

Responsible Designer Name: Ken Dickson	Responsible Designer Signature:
Company: Windward Engineering	Date Signed: 2020-03-24 08:53:16
Address:	License:
1825 State St	61155
City/State/Zip:	Phone:
Santa Barbara, CA 93101	805-845-6601

Digitally signed by CalCERTS. This digital signature is provided in order to secure the content of this registered document, and in no way implies Registration Provider responsibility for the accuracy of the information.



Registration Date/Time: 2020-03-24 08:53:16 Report Version: 2019.1.100

HERS Provider: Report Generated: 2020-03-24 08:48:07

moving forward 1825 STATE STREET STE 102

SANTA BARBARA, CA 93101 T: 805.845.6601 E: INFO@WINDWARDENG.COM

PROJECT MARCHETTI ADU 221 LA PLATA

SANTA BARBARA, CA 93109

CLIENT DAVID MARCHETTI 221 LA PLATA

SANTA BARBARA, CA 93109 SHEET INDEX G-001 GENERAL AND SITE PLAN

G-002 ENERGY ANALYSIS G-003 ENERGY ANALYSIS

G-004 GREEN CODE G-005 GENERAL NOTES A-101 PLAN ELEV SECT

A-601 SCHEDULES S-001 GENERAL

S-101 FOUNDATION/ 1ST STORY FRAMING PLAN S-501 CONCRETE DETAILS S-502 CONCRETE DETAILS

S-503 FRAMING DETAILS S-504 FRAMING DETAILS

S-505 FRAMING DETAILS S-506 SW & SHEATHING DETAILS P-101 PLUMBING PLAN

M-101 MECH PLAN

4/9/2020

03/03/2020 (E) FENCE SUBMITTA DART RESUBMITTAL 03/03/2020 03/18/2020 RESUBMITTAL

SCALE AS NOTED CREATED BY: WDS

SHEET **ENERGY ANALYSIS**

Registration Number: 220-P010037464C-000-000-0000000-0000 CA Building Energy Efficiency Standards - 2019 Residential Compliance

Registration Date/Time: 2020-03-24 08:53:16 Report Version: 2019.1.100 Schema Version: rev 20190401

Report Generated: 2020-03-24 08:48:07

Registration Number: 220-P010037464C-000-000-0000000-0000 CalCERTS inc. CA Building Energy Efficiency Standards - 2019 Residential Compliance Registration Date/Time: 2020-03-24 08:53:16 Report Version: 2019.1.100 Schema Version: rev 20190401

Report Generated: 2020-03-24 08:48:07

CalCERTS inc.

Registration Number: 220-P010037464C-000-000-0000000-0000 CA Building Energy Efficiency Standards - 2019 Residential Compliance

Schema Version: rev 20190401



§ 150.0(h)1:

2019 Low-Rise Residential Mandatory Measures Summary

<u>NOTE:</u> Low-rise residential buildings subject to the Energy Standards must comply with all applicable mandatory measures, regardless of the compliance approach used. Review the respective section for more information. *Exceptions may apply.
(Original 08/2019)

(Original 08/2019)	
Building Envelop	
§ 110.6(a)1:	Air Leakage. Manufactured fenestration, exterior doors, and exterior pet doors must limit air leakage to 0.3 cfm per square foot or less when tested per NFRC-400, ASTM E283 or AAMA/WDMA/CSA 101/I.S.2/A440-2011.*
§ 110.6(a)5:	Labeling. Fenestration products and exterior doors must have a label meeting the requirements of Section 10-111(a).
§ 110.6(b):	Field fabricated exterior doors and fenestration products must use U-factors and solar heat gain coefficient (SHGC) values from Tables 110.6-A, 110.6-B, or JA4.5 for exterior doors. They must be caulked and/or weather stripped.*
§ 110.7:	Air Leakage. All joints, penetrations, and other openings in the building envelope that are potential sources of air leakage must be caulked, gasketed, or weather stripped.
§ 110.8(a):	Insulation Certification by Manufacturers. Insulation must be certified by the Department of Consumer Affairs, Bureau of Household Goods and Services (BHGS).
§ 110.8(g):	Insulation Requirements for Heated Slab Floors. Heated slab floors must be insulated per the requirements of Section 110.8(g).
§ 110.8(i):	Roofing Products Solar Reflectance and Thermal Emittance. The thermal emittance and aged solar reflectance values of the roofing material must meet the requirements of § 110.8(i) and be labeled per §10-113 when the installation of a cool roof is specified on the CF1R.
§ 110.8(j):	Radiant Barrier. When required, radiant barriers must have an emittance of 0.05 or less and be certified to the Department of Consumer Affairs
§ 150.0(a):	Ceiling and Rafter Roof Insulation. Minimum R-22 insulation in wood-frame ceiling; or the weighted average U-factor must not exceed 0.043. Minimum R-19 or weighted average U-factor of 0.054 or less in a rafter roof alteration. Attic access doors must have permanently attached insulation using adhesive or mechanical fasteners. The attic access must be gasketed to prevent air leakage. Insulation must be installed in direct contact with a continuous roof or ceiling which is sealed to limit infiltration and exfiltration as specified in § 110.7, including but not limited to placing insulation either above or below the roof deck or on top of a drywall ceiling."
§ 150.0(b):	Loose-fill Insulation. Loose fill insulation must meet the manufacturer's required density for the labeled R-value.
§ 150.0(c):	Wall Insulation. Minimum R-13 insulation in 2x4 inch wood framing wall or have a U-factor of 0.102 or less, or R-20 in 2x6 inch wood framing or have a U-factor of 0.071 or less, (R-19 in 2x6 or U-factor of 0.074 or less). Opaque non-framed assemblies must have an overall assembly U-factor not exceeding 0.102, equivalent to an installed value of R-13 in a wood framed assembly. Masonry walls must meet Table 150.1-A or B.*
§ 150.0(d):	Raised-floor Insulation. Minimum R-19 insulation in raised wood framed floor or 0.037 maximum U-factor.*
§ 150.0(f):	Slab Edge Insulation. Slab edge insulation must meet all of the following: have a water absorption rate, for the insulation material alone without facings no greater than 0.3%; have a water vapor permeance no greater than 2.0 perm per inch; be protected from physical damage and UV light deterioration; and, when installed as part of a heated slab floor, meet the requirements of § 110.8(g).
§ 150.0(g)1:	Vapor Retarder. In climate zones 1 through 16, the earth floor of unvented crawl space must be covered with a Class I or Class II vapor retarder. This requirement also applies to controlled ventilation crawl space for buildings complying with the exception to § 150.0(d). Vapor Retarder. In climate zones 14 and 16, a Class I or Class II vapor retarder must be installed on the conditioned space side of all
§ 150.0(g)2:	insulation in all exterior walls, vented attics, and unvented attics with air-permeable insulation. Fenestration Products. Fenestration, including skylights, separating conditioned space from unconditioned space or outdoors must have a
§ 150.0(q):	maximum U-factor of 0.58; or the weighted average U-factor of all fenestration must not exceed 0.58.*
Fireplaces, Deco	rative Gas Appliances, and Gas Log Measures:
§ 110.5(e)	Pilot Light. Continuously burning pilot lights are not allowed for indoor and outdoor fireplaces.
§ 150.0(e)1:	Closable Doors. Masonry or factory-built fireplaces must have a closable metal or glass door covering the entire opening of the firebox.
§ 150.0(e)2:	Combustion Intake. Masonry or factory-built fireplaces must have a combustion outside air intake, which is at least six square inches in area and is equipped with a readily accessible, operable, and tight-fitting damper or combustion-air control device.*
§ 150.0(e)3:	Flue Damper. Masonry or factory-built fireplaces must have a flue damper with a readily accessible control.*
Space Conditioni	ing, Water Heating, and Plumbing System Measures:
§ 110.0-§ 110.3:	Certification. Heating, ventilation and air conditioning (HVAC) equipment, water heaters, showerheads, faucets, and all other regulated appliances must be certified by the manufacturer to the Energy Commission.
§ 110.2(a):	HVAC Efficiency. Equipment must meet the applicable efficiency requirements in Table 110.2-A through Table 110.2-K.*
§ 110.2(b):	Controls for Heat Pumps with Supplementary Electric Resistance Heaters. Heat pumps with supplementary electric resistance heaters must have controls that prevent supplementary heater operation when the heating load can be met by the heat pump alone; and in which the cut-on temperature for compression heating is higher than the cut-on temperature for supplementary heating, and the cut-off temperature for compression heating is higher than the cut-off temperature for supplementary heating.*
§ 110.2(c):	Thermostats. All heating or cooling systems not controlled by a central energy management control system (EMCS) must have a setback thermostat.*
§ 110.3(c)4:	Water Heating Recirculation Loops Serving Multiple Dwelling Units. Water heating recirculation loops serving multiple dwelling units must meet the air release valve, backflow prevention, pump priming, pump isolation valve, and recirculation loop connection requirements of § 110.3(c)4.
§ 110.3(c)6:	Isolation Valves. Instantaneous water heaters with an input rating greater than 6.8 kBTU per hour (2 kW) must have isolation valves with hose bibbs or other fittings on both cold and hot water lines to allow for flushing the water heater when the valves are closed.
	Distribute Carling with the company of the forest and the company of the company

Pilot Lights. Continuously burning pilot lights are prohibited for natural gas: fan-type central furnaces; household cooking appliances (appliances without an electrical supply voltage connection with pilot lights that consume less than 150 Btu/hr are exempt); and pool and spa heaters.*

Building Cooling and Heating Loads. Heating and/or cooling loads are calculated in accordance with the ASHRAE Handbook, Equipment Volume, Applications Volume, and Fundamentals Volume; the SMACNA Residential Comfort System Installation Standards Manual; or the ACCA Manual J using design conditions specified in § 150.0(h)2.

§ 150.0(m)13:

2010 Law Dica Dacidantial Mandatory Mascurae Sun

§ 150.0(h)3A:	Clearances. Air conditioner and heat pump outdoor condensing units must have a clearance of at least 5 feet from the outlet of any dryer ven
§ 150.0(h)3B:	Liquid Line Drier. Air conditioners and heat pump systems must be equipped with liquid line filter driers if required, as specified by the manufacturer's instructions.
§ 150.0(j)1:	Storage Tank Insulation. Unfired hot water tanks, such as storage tanks and backup storage tanks for solar water-heating systems, must ha a minimum of R-12 external insulation or R-16 internal insulation where the internal insulation R-value is indicated on the exterior of the tank.
§ 150.0(j)2A:	Water Piping, Solar Water-heating System Piping, and Space Conditioning System Line Insulation. All domestic hot water piping must be insulated as specified in Section 609.11 of the California Plumbing Code. In addition, the following piping conditions must have a minimum insulation wall thickness of 1 inch or a minimum insulation R-value of 7.7: the first 5 feet of cold water pipes from the storage tank; all hot water piping with a nominal diameter equal to or greater than 3/4 inch and less than 1 inch; all hot water piping with a nominal diameter less than 3/4 inch that is: associated with a domestic hot water recirculation system, from the heating source to storage tank or between tanks, buried below grade, and from the heating source to kitchen fixtures.*
§ 150.0(j)3:	Insulation Protection. Piping insulation must be protected from damage, including that due to sunlight, moisture, equipment maintenance, at wind as required by Section 120.3(b). Insulation exposed to weather must be water retardant and protected from UV light (no adhesive tapes) Insulation covering chilled water piping and refrigerant suction piping located outside the conditioned space must include, or be protected by, Class I or Class II vapor retarder. Pipe insulation buried below grade must be installed in a waterproof and non-crushable casing or sleeve.
§ 150.0(n)1:	Gas or Propane Water Heating Systems. Systems using gas or propane water heaters to serve individual dwelling units must include all of the following: A dedicated 125 volt, 20 amp electrical receptacle that is connected to the electric panel with a 120/240 volt 3 conductor, 10 AWG copper branch circuit, within 3 feet from the water heater without obstruction. Both ends of the unused conductor must be labeled with the word "spare" and be electrically isolated. Have a reserved single pole circuit breaker space in the electrical panel adjacent to the circuit breaker for the branch circuit and labeled with the words "Future 240V Use"; a Category III or IV vent, or a Type B vent with straight pipe between the outside termination and the space where the water heater is installed; a condensate drain that is no more than 2 inches higher than the base of the water heater, and allows natural draining without pump assistance; and a gas supply line with a capacity of at least 200,000 Btu per hour.
§ 150.0(n)2:	Recirculating Loops. Recirculating loops serving multiple dwelling units must meet the requirements of § 110.3(c)5.
§ 150.0(n)3:	Solar Water-heating Systems. Solar water-heating systems and collectors must be certified and rated by the Solar Rating and Certification Corporation (SRCC), the International Association of Plumbing and Mechanical Officials, Research and Testing (IAPMO R&T), or by a listing agency that is approved by the Executive Director.
Ducts and Fans	
§ 110.8(d)3:	Ducts . Insulation installed on an existing space-conditioning duct must comply with California Mechanical Code (CMC) Section 604.0 . If a contractor installs the insulation, the contractor must certify to the customer in writing, that the insulation meets this requirement.
§ 150.0(m)1:	CMC Compliance. All air-distribution system ducts and plenums must meet the requirements of the CMC Section 601.0, 602.0, 603.0, 604.0, 605.0 and ANSI/SMACNA-006-2006 HVAC Duct Construction Standards Metal and Flexible 3rd Edition. Portions of supply-air and return-air ducts and plenums must be insulated to a minimum installed level of R-6.0 or a minimum installed level of R-4.2 when ducts are entirely in conditioned space as confirmed through field verification and diagnostic testing (RA3.1.4.3.8). Portions of the duct system completely exposed and surrounded by directly conditioned space are not required to be insulated. Connections of metal ducts and inner core of flexible ducts must be mechanically fastened. Openings must be sealed with mastic, tape, or other duct-closure system that meets the applicable requirements of UL 181, UL 181A, or UL 181B or aerosol sealant that meets the requirements of UL 723. If mastic or tape is used to seal openings greater that ¼ inch, the combination of mastic and either mesh or tape must be used. Building cavities, support platforms for air handlers, and plenums designed or constructed with materials other than sealed sheet metal, duct board or flexible duct must not be used to convey conditioned air. Building cavities and support platforms may contain ducts. Ducts installed in cavities and support platforms must not be compressed to cause reductions in the cross-sectional area.*
§ 150.0(m)2:	Factory-Fabricated Duct Systems . Factory-fabricated duct systems must comply with applicable requirements for duct construction, connections, and closures; joints and seams of duct systems and their components must not be sealed with cloth back rubber adhesive duct tapes unless such tape is used in combination with mastic and draw bands.
§ 150.0(m)3:	Field-Fabricated Duct Systems. Field-fabricated duct systems must comply with applicable requirements for: pressure-sensitive tapes, mastics, sealants, and other requirements specified for duct construction.
§ 150.0(m)7:	Backdraft Damper. Fan systems that exchange air between the conditioned space and outdoors must have backdraft or automatic dampers.
§ 150.0(m)8:	Gravity Ventilation Dampers. Gravity ventilating systems serving conditioned space must have either automatic or readily accessible, manually operated dampers in all openings to the outside, except combustion inlet and outlet air openings and elevator shaft vents.
§ 150.0(m)9:	Protection of Insulation. Insulation must be protected from damage, sunlight, moisture, equipment maintenance, and wind. Insulation expos to weather must be suitable for outdoor service. For example, protected by aluminum, sheet metal, painted canvas, or plastic cover. Cellular foam insulation must be protected as above or painted with a coating that is water retardant and provides shielding from solar radiation.
§ 150.0(m)10:	Porous Inner Core Flex Duct. Porous inner core flex ducts must have a non-porous layer between the inner core and outer vapor barrier.
§ 150.0(m)11:	Duct System Sealing and Leakage Test. When space conditioning systems use forced air duct systems to supply conditioned air to an occupiable space, the ducts must be sealed and duct leakage tested, as confirmed through field verification and diagnostic testing, in accordance with § 150.0(m)11 and Reference Residential Appendix RA3.
§ 150.0(m)12:	Air Filtration. Space conditioning systems with ducts exceeding 10 feet and the supply side of ventilation systems must have MERV 13 or equivalent filters. Filters for space conditioning systems must have a 2 inch depth or can be 1 inch if sized per Equation 150.0-A. Pressure dro

Space Conditioning System Airflow Rate and Fan Efficacy. Space conditioning systems that use ducts to supply cooling must have a hole for the placement of a static pressure probe, or a permanently installed static pressure probe in the supply plenum. Airflow must be ≥ 350 CFM

per ton of nominal cooling capacity, and an air-handling unit fan efficacy ≤ 0.45 watts per CFM for gas furnace air handlers and ≤ 0.58 watts per CFM for all others. Small duct high velocity systems must provide an airflow ≥ 250 CFM per ton of nominal cooling capacity, and an air-handling unit fan efficacy ≤ 0.62 watts per CFM. Field verification testing is required in accordance with Reference Residential Appendix RA3.3.*



2019 Low-Rise Residential Mandatory Measures Summary

Requirements f	or Ventilation and Indoor Air Quality:
§ 150.0(o)1:	Requirements for Ventilation and Indoor Air Quality. All dwelling units must meet the requirements of ASHRAE Standard 62.2, Ventilation and Acceptable Indoor Air Quality in Residential Buildings subject to the amendments specified in § 150.0(o)1.
§ 150.0(o)1C:	Single Family Detached Dwelling Units. Single family detached dwelling units, and attached dwelling units not sharing ceilings or floors with other dwelling units, occupiable spaces, public garages, or commercial spaces must have mechanical ventilation airflow provided at rates determined by ASHRAE 62.2 Sections 4.1.1 and 4.1.2 and as specified in § 150.0(o)1C.
§ 150.0(o)1E:	Multifamily Attached Dwelling Units. Multifamily attached dwelling units must have mechanical ventilation airflow provided at rates in accordance with Equation 150.0-B and must be either a balanced system or continuous supply or continuous exhaust system. If a balanced system is not used, all units in the building must use the same system type and the dwelling-unit envelope leakage must be ≤ 0.3 CFM at 50 Pa (0.2 inch water) per square foot of dwelling unit envelope surface area and verified in accordance with Reference Residential Appendix RA3.8.
§ 150.0(o)1F:	Multifamily Building Central Ventilation Systems. Central ventilation systems that serve multiple dwelling units must be balanced to provide ventilation airflow for each dwelling unit served at a rate equal to or greater than the rate specified by Equation 150.0-B. All unit airflows must b within 20% of the unit with the lowest airflow rate as it relates to the individual unit's minimum required airflow rate needed for compliance.
§ 150.0(o)1G:	Kitchen Range Hoods. Kitchen range hoods must be rated for sound in accordance with Section 7.2 of ASHRAE 62.2.
§ 150.0(o)2:	Field Verification and Diagnostic Testing. Dwelling unit ventilation airflow must be verified in accordance with Reference Residential Appendix RA3.7. Kitchen range hoods must be verified in accordance with Reference Residential Appendix RA3.7.4.3 to confirm it is rated by HVI to comply with the airflow rates and sound requirements as specified in Section 5 and 7.2 of ASHRAE 62.2.
Pool and Spa S	ystems and Equipment Measures:
§ 110.4(a):	Certification by Manufacturers. Any pool or spa heating system or equipment must be certified to have all of the following: a thermal efficiency that complies with the Appliance Efficiency Regulations; an on-off switch mounted outside of the heater that allows shutting off the heater without adjusting the thermostat setting; a permanent weatherproof plate or card with operating instructions; and must not use electric resistance heating.*
§ 110.4(b)1:	Piping. Any pool or spa heating system or equipment must be installed with at least 36 inches of pipe between the filter and the heater, or dedicated suction and return lines, or built-in or built-up connections to allow for future solar heating.
§ 110.4(b)2:	Covers. Outdoor pools or spas that have a heat pump or gas heater must have a cover.
§ 110.4(b)3:	Directional Inlets and Time Switches for Pools. Pools must have directional inlets that adequately mix the pool water, and a time switch that will allow all pumps to be set or programmed to run only during off-peak electric demand periods.
§ 110.5:	Pilot Light. Natural gas pool and spa heaters must not have a continuously burning pilot light.
§ 150.0(p):	Pool Systems and Equipment Installation. Residential pool systems or equipment must meet the specified requirements for pump sizing, flo rate, piping, filters, and valves.*
Lighting Measu	· · · ·
§ 110.9:	Lighting Controls and Components. All lighting control devices and systems, ballasts, and luminaires must meet the applicable requirements of § 110.9.*
§ 150.0(k)1A:	Luminaire Efficacy. All installed luminaires must meet the requirements in Table 150.0-A.
§ 150.0(k)1B:	Blank Electrical Boxes. The number of electrical boxes that are more than 5 feet above the finished floor and do not contain a luminaire or other device must be no greater than the number of bedrooms. These electrical boxes must be served by a dimmer, vacancy sensor control, or fan speed control.
§ 150.0(k)1C:	Recessed Downlight Luminaires in Ceilings. Luminaires recessed into ceilings must meet all of the requirements for: insulation contact (IC) labeling; air leakage; sealing; maintenance; and socket and light source as described in § 150.0(k)1C.
§ 150.0(k)1D:	Electronic Ballasts for Fluorescent Lamps. Ballasts for fluorescent lamps rated 13 watts or greater must be electronic and must have an
§ 150.0(k)1E:	output frequency no less than 20 kHz. Night Lights, Step Lights, and Path Lights. Night lights, step lights and path lights are not required to comply with Table 150.0-A or be controlled by vacancy sensors provided they are rated to consume no more than 5 watts of power and emit no more than 150 lumens.
.3 100.0(N/IL.	controlled by vacancy schools provided they are rated to consume no more than 3 waits of power and entit no more than 130 idilities.
	Lighting Integral to Exhaust Fans. Lighting integral to exhaust fans (except when installed by the manufacturer in kitchen exhaust hoods)
§ 150.0(k)1F:	Lighting Integral to Exhaust Fans. Lighting integral to exhaust fans (except when installed by the manufacturer in kitchen exhaust hoods) must meet the applicable requirements of § 150.0(k).*
§ 150.0(k)1F: § 150.0(k)1G: § 150.0(k)1H:	Lighting Integral to Exhaust Fans. Lighting integral to exhaust fans (except when installed by the manufacturer in kitchen exhaust hoods)
§ 150.0(k)1F: § 150.0(k)1G:	Lighting Integral to Exhaust Fans. Lighting integral to exhaust fans (except when installed by the manufacturer in kitchen exhaust hoods) must meet the applicable requirements of § 150.0(k).* Screw based luminaires. Screw based luminaires must contain lamps that comply with Reference Joint Appendix JA8.* Light Sources in Enclosed or Recessed Luminaires. Lamps and other separable light sources that are not compliant with the JA8 elevated temperature requirements, including marking requirements, must not be installed in enclosed or recessed luminaires. Light Sources in Drawers, Cabinets, and Linen Closets. Light sources internal to drawers, cabinetry or linen closets are not required to comply with Table 150.0-A or be controlled by vacancy sensors provided that they are rated to consume no more than 5 watts of power, emit n
§ 150.0(k)1F: § 150.0(k)1G: § 150.0(k)1H: § 150.0(k)1I:	Lighting Integral to Exhaust Fans. Lighting integral to exhaust fans (except when installed by the manufacturer in kitchen exhaust hoods) must meet the applicable requirements of § 150.0(k).* Screw based luminaires. Screw based luminaires must contain lamps that comply with Reference Joint Appendix JA8.* Light Sources in Enclosed or Recessed Luminaires. Lamps and other separable light sources that are not compliant with the JA8 elevated temperature requirements, including marking requirements, must not be installed in enclosed or recessed luminaires. Light Sources in Drawers, Cabinets, and Linen Closets. Light sources internal to drawers, cabinetry or linen closets are not required to comply with Table 150.0-A or be controlled by vacancy sensors provided that they are rated to consume no more than 5 watts of power, emit n
§ 150.0(k)1F: § 150.0(k)1G: § 150.0(k)1H: § 150.0(k)1I: § 150.0(k)2A:	Lighting Integral to Exhaust Fans. Lighting integral to exhaust fans (except when installed by the manufacturer in kitchen exhaust hoods) must meet the applicable requirements of § 150.0(k).* Screw based luminaires. Screw based luminaires must contain lamps that comply with Reference Joint Appendix JA8.* Light Sources in Enclosed or Recessed Luminaires. Lamps and other separable light sources that are not compliant with the JA8 elevated temperature requirements, including marking requirements, must not be installed in enclosed or recessed luminaires. Light Sources in Drawers, Cabinets, and Linen Closets. Light sources internal to drawers, cabinetry or linen closets are not required to comply with Table 150.0-A or be controlled by vacancy sensors provided that they are rated to consume no more than 5 watts of power, emit n more than 150 lumens, and are equipped with controls that automatically turn the lighting off when the drawer, cabinet or linen closet is closed. Interior Switches and Controls. All forward phase cut dimmers used with LED light sources must comply with NEMA SSL 7A. Interior Switches and Controls. Exhaust fans must be controlled separately from lighting systems.*
§ 150.0(k)1F: § 150.0(k)1G: § 150.0(k)1H: § 150.0(k)1I: § 150.0(k)2A: § 150.0(k)2B:	Lighting Integral to Exhaust Fans. Lighting integral to exhaust fans (except when installed by the manufacturer in kitchen exhaust hoods) must meet the applicable requirements of § 150.0(k).* Screw based luminaires. Screw based luminaires must contain lamps that comply with Reference Joint Appendix JA8.* Light Sources in Enclosed or Recessed Luminaires. Lamps and other separable light sources that are not compliant with the JA8 elevated temperature requirements, including marking requirements, must not be installed in enclosed or recessed luminaires. Light Sources in Drawers, Cabinets, and Linen Closets. Light sources internal to drawers, cabinetry or linen closets are not required to comply with Table 150.0-A or be controlled by vacancy sensors provided that they are rated to consume no more than 5 watts of power, emit n more than 150 lumens, and are equipped with controls that automatically turn the lighting off when the drawer, cabinet or linen closet is closed. Interior Switches and Controls. All forward phase cut dimmers used with LED light sources must comply with NEMA SSL 7A.
§ 150.0(k)1F: § 150.0(k)1G: § 150.0(k)1H:	Lighting Integral to Exhaust Fans. Lighting integral to exhaust fans (except when installed by the manufacturer in kitchen exhaust hoods) must meet the applicable requirements of § 150.0(k).* Screw based luminaires. Screw based luminaires must contain lamps that comply with Reference Joint Appendix JA8.* Light Sources in Enclosed or Recessed Luminaires. Lamps and other separable light sources that are not compliant with the JA8 elevated temperature requirements, including marking requirements, must not be installed in enclosed or recessed luminaires. Light Sources in Drawers, Cabinets, and Linen Closets. Light sources internal to drawers, cabinetry or linen closets are not required to comply with Table 150.0-A or be controlled by vacancy sensors provided that they are rated to consume no more than 5 watts of power, emit now more than 150 lumens, and are equipped with controls that automatically turn the lighting off when the drawer, cabinet or linen closet is closed. Interior Switches and Controls. All forward phase cut dimmers used with LED light sources must comply with NEMA SSL 7A. Interior Switches and Controls. Exhaust fans must be controlled separately from lighting systems.* Interior Switches and Controls. Lighting must have readily accessible wall-mounted controls that allow the lighting to be manually
§ 150.0(k)1F: § 150.0(k)1G: § 150.0(k)1H: § 150.0(k)1I: § 150.0(k)2A: § 150.0(k)2B: § 150.0(k)2C:	Lighting Integral to Exhaust Fans. Lighting integral to exhaust fans (except when installed by the manufacturer in kitchen exhaust hoods) must meet the applicable requirements of § 150.0(k).* Screw based luminaires. Screw based luminaires must contain lamps that comply with Reference Joint Appendix JA8.* Light Sources in Enclosed or Recessed Luminaires. Lamps and other separable light sources that are not compliant with the JA8 elevated temperature requirements, including marking requirements, must not be installed in enclosed or recessed luminaires. Light Sources in Drawers, Cabinets, and Linen Closets. Light sources internal to drawers, cabinetry or linen closets are not required to comply with Table 150.0-A or be controlled by vacancy sensors provided that they are rated to consume no more than 5 watts of power, emit now more than 150 lumens, and are equipped with controls that automatically turn the lighting off when the drawer, cabinet or linen closet is closed. Interior Switches and Controls. All forward phase cut dimmers used with LED light sources must comply with NEMA SSL 7A. Interior Switches and Controls. Exhaust fans must be controlled separately from lighting systems.* Interior Switches and Controls. Lighting must have readily accessible wall-mounted controls that allow the lighting to be manually turned ON and OFF.*



2019 Low-Rise Residential Mandatory Measures Summary

ENERGY COMMISSION	
§ 150.0(k)2G:	Interior Switches and Controls. An energy management control system (EMCS) may be used to comply with control requirements if it: provides functionality of the specified control according to § 110.9; meets the Installation Certificate requirements of § 130.4; meets the EMCS requirements of § 130.0(e); and meets all other requirements in § 150.0(k)2.
§ 150.0(k)2H:	Interior Switches and Controls. A multiscene programmable controller may be used to comply with dimmer requirements in § 150.0(k) if it provides the functionality of a dimmer according to § 110.9, and complies with all other applicable requirements in § 150.0(k)2.
§ 150.0(k)2I:	Interior Switches and Controls. In bathrooms, garages, laundry rooms, and utility rooms, at least one luminaire in each of these spaces must be controlled by an occupant sensor or a vacancy sensor providing automatic-off functionality. If an occupant sensor is installed, it must be initially configured to manual-on operation using the manual control required under Section 150.0(k)2C.
§ 150.0(k)2J:	Interior Switches and Controls. Luminaires that are or contain light sources that meet Reference Joint Appendix JA8 requirements for dimming, and that are not controlled by occupancy or vacancy sensors, must have dimming controls.*
§ 150.0(k)2K:	Interior Switches and Controls. Under cabinet lighting must be controlled separately from ceiling-installed lighting systems.
§ 150.0(k)3A:	Residential Outdoor Lighting. For single-family residential buildings, outdoor lighting permanently mounted to a residential building, or to othe buildings on the same lot, must meet the requirement in item § 150.0(k)3Ai (ON and OFF switch) and the requirements in either
§ 150.0(k)3B:	§ 150.0(k)3Aii (photocell and either a motion sensor or automatic time switch control) or § 150.0(k)3Aiii (astronomical time clock), or an EMCS. Residential Outdoor Lighting. For low-rise residential buildings with four or more dwelling units, outdoor lighting for private patios, entrances, balconies, and porches; and residential parking lots and carports with less than eight vehicles per site must comply with either Section 150.0(k)3A or with the applicable requirements in Sections 110.9, 130.0, 130.2, 130.4, 140.7 and 141.0.
§ 150.0(k)3C:	Residential Outdoor Lighting. For low-rise residential buildings with four or more dwelling units, any outdoor lighting for residential parking lots or carports with a total of eight or more vehicles per site and any outdoor lighting not regulated by Section 150.0(k)3B or Section 150.0(k)3D must comply with the applicable requirements in Sections 110.9, 130.0, 130.2, 130.4, 140.7 and 141.0.
§ 150.0(k)4:	Internally illuminated address signs. Internally illuminated address signs must comply with § 140.8; or must consume no more than 5 watts o power as determined according to § 130.0(c).
§ 150.0(k)5:	Residential Garages for Eight or More Vehicles. Lighting for residential parking garages for eight or more vehicles must comply with the applicable requirements for nonresidential garages in Sections 110.9, 130.0, 130.1, 130.4, 140.6, and 141.0.
§ 150.0(k)6A:	Interior Common Areas of Low-rise Multifamily Residential Buildings. In a low-rise multifamily residential building where the total interior common area in a single building equals 20 percent or less of the floor area, permanently installed lighting for the interior common areas in that building must be comply with Table 150.0-A and be controlled by an occupant sensor.
§ 150.0(k)6B:	Interior Common Areas of Low-rise Multifamily Residential Buildings. In a low-rise multifamily residential building where the total interior common area in a single building equals more than 20 percent of the floor area, permanently installed lighting for the interior common areas in that building must: i. Comply with the applicable requirements in Sections 110.9, 130.0, 130.1, 140.6 and 141.0; and ii. Lighting installed in corridors and stairwells must be controlled by occupant sensors that reduce the lighting power in each space by at least 50 percent. The occupant sensors must be capable of turning the light fully on and off from all designed paths of ingress and egress.
Solar Ready Bui	ldings:
§ 110.10(a)1:	Single Family Residences. Single family residences located in subdivisions with ten or more single family residences and where the application for a tentative subdivision map for the residences has been deemed complete and approved by the enforcement agency, which do not have a photovoltaic system installed, must comply with the requirements of § 110.10(b) through § 110.10(e).
§ 110.10(a)2:	Low-rise Multifamily Buildings . Low-rise multi-family buildings that do not have a photovoltaic system installed must comply with the requirements of § 110.10(b) through § 110.10(d).
§ 110.10(b)1:	Minimum Solar Zone Area. The solar zone must have a minimum total area as described below. The solar zone must comply with access, pathway, smoke ventilation, and spacing requirements as specified in Title 24, Part 9 or other Parts of Title 24 or in any requirements adopted by a local jurisdiction. The solar zone total area must be comprised of areas that have no dimension less than 5 feet and are no less than 80 square feet each for buildings with roof areas less than or equal to 10,000 square feet or no less than 160 square feet each for buildings with roof areas greater than 10,000 square feet. For single family residences, the solar zone must be located on the roof or overhang of the building and have a total area no less than 250 square feet. For low-rise multi-family buildings the solar zone must be located on the roof or overhang of the building, or on the roof or overhang of another structure located within 250 feet of the building, or on covered parking installed with the building project, and have a total area no less than 15 percent of the total roof area of the building excluding any skylight area. The solar zone requirement is applicable to the entire building, including mixed occupancy."
§ 110.10(b)2:	Azimuth. All sections of the solar zone located on steep-sloped roofs must be oriented between 90 degrees and 300 degrees of true north.
	Shading. The solar zone must not contain any obstructions, including but not limited to: vents, chimneys, architectural features, and roof
§ 110.10(b)3A:	mounted equipment.*
§ 110.10(b)3A: § 110.10(b)3B:	mounted equipment.* Shading. Any obstruction located on the roof or any other part of the building that projects above a solar zone must be located at least twice the
	mounted equipment.* Shading. Any obstruction located on the roof or any other part of the building that projects above a solar zone must be located at least twice the distance, measured in the horizontal plane, of the height difference between the highest point of the obstruction and the horizontal projection of the nearest point of the solar zone, measured in the vertical plane.* Structural Design Loads on Construction Documents. For areas of the roof designated as a solar zone, the structural design loads for roof dead load and roof live load must be clearly indicated on the construction documents.
§ 110.10(b)3B:	mounted equipment.* Shading. Any obstruction located on the roof or any other part of the building that projects above a solar zone must be located at least twice the distance, measured in the horizontal plane, of the height difference between the highest point of the obstruction and the horizontal projection of the nearest point of the solar zone, measured in the vertical plane.* Structural Design Loads on Construction Documents. For areas of the roof designated as a solar zone, the structural design loads for roof dead load and roof live load must be clearly indicated on the construction documents. Interconnection Pathways. The construction documents must indicate: a location reserved for inverters and metering equipment and a pathway reserved for routing of conduit from the solar zone to the point of interconnection with the electrical service; and for single family residences and central water-heating systems, a pathway reserved for routing plumbing from the solar zone to the water-heating system.
§ 110.10(b)3B: § 110.10(b)4:	mounted equipment.* Shading. Any obstruction located on the roof or any other part of the building that projects above a solar zone must be located at least twice the distance, measured in the horizontal plane, of the height difference between the highest point of the obstruction and the horizontal projection of the nearest point of the solar zone, measured in the vertical plane.* Structural Design Loads on Construction Documents. For areas of the roof designated as a solar zone, the structural design loads for roof dead load and roof live load must be clearly indicated on the construction documents. Interconnection Pathways. The construction documents must indicate: a location reserved for inverters and metering equipment and a pathway reserved for routing of conduit from the solar zone to the point of interconnection with the electrical service; and for single family
§ 110.10(b)3B: § 110.10(b)4: § 110.10(c):	mounted equipment.* Shading. Any obstruction located on the roof or any other part of the building that projects above a solar zone must be located at least twice the distance, measured in the horizontal plane, of the height difference between the highest point of the obstruction and the horizontal projection of the nearest point of the solar zone, measured in the vertical plane.* Structural Design Loads on Construction Documents. For areas of the roof designated as a solar zone, the structural design loads for roof dead load and roof live load must be clearly indicated on the construction documents. Interconnection Pathways. The construction documents must indicate: a location reserved for inverters and metering equipment and a pathway reserved for routing of conduit from the solar zone to the point of interconnection with the electrical service; and for single family residences and central water-heating systems, a pathway reserved for routing plumbing from the solar zone to the water-heating system. Documentation. A copy of the construction documents or a comparable document indicating the information from § 110.10(b) through

moving forward

1825 STATE STREET STE 102 SANTA BARBARA, CA 93101 T: 805.845.6601 E: INFO@WINDWARDENG.COM

PROJECT

MARCHETTI ADU 221 LA PLATA SANTA BARBARA, CA 93109

CLIENT

DAVID MARCHETTI 221 LA PLATA SANTA BARBARA, CA 93109

SHEET INDEX G-001 GENERAL AND SITE PLAN G-002 ENERGY ANALYSIS G-003 ENERGY ANALYSIS G-004 GREEN CODE G-005 GENERAL NOTES A-101 PLAN ELEV SECT A-601 SCHEDULES S-001 GENERAL

S-101 FOUNDATION/1ST STORY FRAMING PLAN S-501 CONCRETE DETAILS

S-502 CONCRETE DETAILS S-503 FRAMING DETAILS S-504 FRAMING DETAILS

S-505 FRAMING DETAILS S-506 SW & SHEATHING DETAILS

P-101 PLUMBING PLAN

M-101 MECH PLAN

4/9/2020 DATES

03/03/2020 (E) FENCE SUBMITTAL 03/03/2020 DART RESUBMITTAL 03/18/2020 RESUBMITTAL

SCALE AS NOTED

CREATED BY: WDS

SHEET

ENERGY ANALYSIS

SECTION 301 GENERAL

301.1 SCOPE. Buildings shall be designed to include the green building measures specified as mandatory in the application checklists contained in this code. Voluntary green building measures are also included in the application checklists and may be included in the design and construction of structures covered by this code, but are not required unless adopted by a city, county, or city and county as specified in Section 101.7.

301.1.1 Additions and alterations. IHCD] The mandatory provisions of Chapter 4 shall be applied to additions or alterations of existing residential buildings where the addition or alteration increases the building's conditioned area, volume, or size. The requirements shall apply only to and/or within the specific area of the addition or

Note: On and after January 1, 2014, residential buildings undergoing permitted alterations, additions, or improvements shall replace noncompliant plumbing fixtures with water-conserving plumbing fixtures. Plumbing fixture replacement is required prior to issuance of a certificate of final completion, certificate of occupancy or final permit approval by the local building department. See Civil Code Section 1101.1, et seq., for the definition of a noncompliant plumbing fixture, types of residential buildings affected and other important enactment dates.

301.2 LOW-RISE AND HIGH-RISE RESIDENTIAL BUILDINGS, [HCD] The provisions of individual sections of CALGreen may apply to either low-rise residential buildings high-rise residential buildings, or both. Individual sections will be designated by banners to indicate where the section applies specifically to low-rise only (LR) or high-rise only (HR). When the section applies to both low-rise and high-rise buildings, no banner will be used.

SECTION 302 MIXED OCCUPANCY BUILDINGS

302.1 MIXED OCCUPANCY BUILDINGS. In mixed occupancy buildings, each portion of a building shall comply with the specific green building measures applicable to each specific occupancy.

ABBREVIATION DEFINITIONS:

HCD Department of Housing and Community Development BSC California Building Standards Commission

DSA-SS Division of the State Architect, Structural Safety OSHPD Office of Statewide Health Planning and Development

LR Low Rise

HR High Rise Additions and Alterations

SECTION 4.102 DEFINITIONS

CHAPTER4 RESIDENTIAL MANDATORY MEASURES DIVISION 4.1 PLANNING AND DESIGN

4.102.1 DEFINITIONS The following terms are defined in Chapter 2 (and are included here for reference)

FRENCH DRAIN. A trench, hole or other depressed area loosely filled with rock, gravel, fragments of brick or similar pervious material used to collect or channel drainage or runoff water.

WATTLES. Wattles are used to reduce sediment in runoff. Wattles are often constructed of natural plant materials such as hay, straw or similar material shaped in the form of tubes and placed on a downflow slope. Wattles are also used for perimeter and inlet controls.

4.106 SITE DEVELOPMENT

4.106.1 GENERAL. Preservation and use of available natural resources shall be accomplished through evaluation and careful planning to minimize negative effects on the site and adjacent areas. Preservation of slopes, management of stem, water drainage and erosion controls shall comply with this section

4.106.2 STORM WATER DRAINAGE AND RETENTION DURING CONSTRUCTION. Projects which disturb less than one acre of soil and are not part of a larger common plan of development which in total disturbs one acre or more, shall manage stem, water drainage during construction. In order to manage stom, water drainage during construction, one or more of the following measures shall be implemented to prevent flooding of adjacent property, prevent erosion and retain soil runoff on the site.

1. Retention basins of sufficient size shall be utilized to retain stem, water on the site. 2. Where storm water is conveyed to a public drainage system, collection point, gutter or similar

disposal method, water shall be filtered by use of a barrier system, wattle or other method approved by the enforcing agency.

3. Compliance with a lawfully enacted storm water management ordinance. 4.106.3 GRADING AND PAVING. Construction plans shall indicate how the site grading or drainage system will manage all surface water flows to keep water from entering buildings. Examples of methods to manage surface water include, but are not limited to, the following:

 Swales 2. Water collection and disposal systems

French drains

4. Water retention gardens 5. Other water measures which keep surface water away from buildings and aid in groundwater recharge.

Exception: Additions and alterations not altering the drainage path 4.106.4 Electric vehicle (EV) charging for new construction. New construction shall comply with Sections 4.106.4.1 and 4.106.4.2 to facilitate future installation and use of EV chargers. Electric vehicle supply equipment (EVSE)

shall be installed in accordance with the Galifornia Efectrical Code, Article 625. Exceptions: On a case-by-case basis, where the local enforcing agency has determined EV charging

and infrastructure are not feasible based upon one or more of the following conditions: 1. Where there is no commercial power supply.

2. Where there is evidence substantiating that meeting the requirements will alter the local utility infrastructure design requirements on the utility side of the meter so as to increase the utility side cost to the homeowner or developer by more than \$400.00 per unit.

4.106.4.1 New one- and two-family dwellings and townhouses with attached private garages. For each dwelling unit, install a listed raceway to accommodate a dedicated 208/240-volt branch circuit. The raceway shall not be less than trade size 1 (nominal 1-inch inside diameter). The raceway shall originate at the main service or subpanel and shall terminate into a listed cabinet, box or other enclosure in close proximity to the proposed location of an EV charger. Raceways are required to be continuous at enclosed, inaccessible or concealed areas and spaces. The service panel and/or subpanel shall provide capacity to install a 40-ampere minimum dedicated branch circuit and space(s) reserved to permit installation of a branch circuit overcurrent protective device.

4.106.4.1.1 Identification. The service panel or subpanel circuit directory shall identify the overcurrent protective device space(s) reserved for future EV charging as "EV CAPABLE". The raceway termination location shall be permanently and visibly marked as "EV CAPABLE"

4.106.4.2 New multifamily dwellings. Where 17 or more multifamily dwelling units are constructed on a building site, 3 percent of the total number of parking spaces provided for all types of parking facilities, but in no case less than one, shall be electric vehicle charging stations (EV spaces) capable of supporting future EVSE. Calculations for the number of EV spaces shall be rounded up to the nearest whole number.

Note: Construction documents are intended to demonstrate the project's capability and capacity for facilitating future EV charging. There is no requirement for EV spaces to be constructed or available until EV chargers are installed for use.

4.106.4.2.1 Electric vehicle charging space (EV space) locations. Construction documents shall indicate the location of proposed EV spaces. At least one EV space shall be located in common use areas and available for use by all residents.

When EV chargers are installed, EV spaces required by Section 4.106.2.2, Item 3, shall comply with at least one of the following options:

1. The EV space shall be located adjacent to an accessible parking space meeting the requirements of the California Building Code, Chapter 11A, to allow use of the EV charger

from the accessible parking space. 2. The EV space shall be located on an accessible route, as defined in the California Building

Code, Chapter 2, to the building.

4.106.4.2.2 Electric vehicle charging space (EV space) dimensions. The EV space shall be designed to comply with the

1. The minimum length of each EV space shall be 18 feet (5486 mm). 2. The minimum width of each EV space shall be 9 feet (2743 mm).

construction.

3. One in every 25 EV spaces, but not less than one EV space, shall have an 8-foot (2438 mm) wide minimum aisle. A 5-foot (1524 mm) wide minimum aisle shall be pemiitted provided the minimum width of the EV space is 12 feet (3658 mm).

a. Surface slope for this EV space and the aisle shall not exceed 1 unit vertical in 48 units horizontal (2.083

4.106.4.2.3 Single EV space required. Install a listed raceway capable of accommodating a 208/240- volt dedicated branch circuit. The raceway shall not be less than trade size 1 (nominal 1-inch inside diameter). The raceway shall originate at the main service or subpanel and shall terminate into a listed cabinet, box or enclosure in close proximity to the proposed location of the EV spaces. Construction documents shall identify the raceway termination point. The service panel and/or subpanel shall provide capacity to install a 40-ampere minimum dedicated branch circuit and space(s) reserved to permit installation of a branch circuit overcurrent protective device.

4.106.4.2.4 Multiple EV spaces required. Construction documents shall indicate the raceway termination point and proposed location of future EV spaces and EV chargers. Construction documents shall also provide information on amperage of future EVSE, raceway method(s), wiring schematics and electrical load calculations to verify that the electrical panel service capacity and electrical system, including any on-site distribution transfomier(s), have sufficient capacity to simultaneously charge all EVs at all required EV spaces at the full rated amperage of the EVSE. Plan design shall be based upon a 40-ampere minimum branch circuit. Raceways and related components that are planned to be installed underground, enclosed, inaccessible or in concealed areas and spaces shall be installed at the time of original 4.106.4.2.5 Indentification. The service panel or subpanel circuit directory shall identify the overcurrent protective device space(s) reserved for future EV charging purposes as "EV CAPABLE" in accordance with the Galifomia Electrical Code.

1. The California Department of Transportation adopts and publishes the "California Manual on Uniform. Traffic Control Devices (California MUTcor to provide uniform standards and specifications for all official traffic control devices in California. Zero Emission Vehicle Signs and Pavement Markings can be found in the New Policies & Directives Number 13-01. Website: www.dot.ca.gov/trafficcps/policy/13-01.pdf 2. See Vehicle Code Section 22511 for EV charging space signage in off-street parking facilities and for use of EV charging spaces. 3. The Governor's Office of Planning and Research (QPR) published a "Zero-Emission

Vehicle Community Readiness Guidebook" which provides helpful information for local governments, residents and businesses Website: http://opr.ca.gov/docs/ZEV _ Guidebook.pdf

4.201 GENERAL

ENERGY EFFICIENCY

4.201.1 SCOPE. For the purposes of mandatory energy efficiency standards in this code, the Galifomia Energy Commission will continue to adopt mandatory standards. DIVISION 4.3 WATER EFFICIENCY AND CONSERVATION

4.303 INDOOR WATER USE

4.303.1 WATER CONSERVING PLUMBING FIXTURES AND FITTINGS. Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the following: 4.303.1.1 Water Closets. The effective flush volume of all water closets shell not exceed 1.28 gallons per flush. Tanktype water closets shall be certified to the performance criteria of the U.S. EPA WaterSense Specification for Tank-type

Note: The effective flush volume of dual flush toilets is defined as the composite, average flush volume of two reduced flushes and one full flush.

4.303.1.2 Urinals. The effective flush volume of wall mounted urinals shall not exceed 0.125 gallons per flush. The effective flush volume of all other urinals shall not exceed 0.5 gallons per flush. 4.303.1.3 Showerheads.

4.303.1.3.1 Single Showerhead. Showerheads shall have a maximum flow rate of not more than 1.8

gallons per minute at 80 psi. Showerheads shall be certified to the performance criteria of the U.S. EPA WaterSense Specification for Showerheads. 4.303.1.3.2 Multiple showerheads serving one shower. When a shower is served by more than one showerhead, the combined flow rate of all the showerheads and/or other shower outlets controlled by a single valve shall not exceed 1.8 gallons per minute at 80 psi, or the shower shall be designed to only allow one shower outlet to be in operation at a

Note: A hand-held shower shall be considered a showerhead.

4.303.1.4 Faucets. 4.303.1.4.1 Residential Lavatory Faucets. The maximum flow rate of residential lavatory faucets shall not exceed 1.2 gallons per minute at 60 psi. The minimum flow rate of residential lavatory faucets shall not be less than 0.8 gallons per minute at 20 psi. 4.303.1.4.2 Lavatory Faucets In Common and Public Use Areas. The maximum flow rate of lavatory faucets installed in DIRECT-VENT APPLIANCE. A fuel-burning appliance with a sealed combustion system that draws all air for common and public use areas (outside of dwellings or sleeping units) in residential buildings shall not exceed 0.5

gallons per minute at 60 psi. 4.303.1.4.3 Metering Faucets. Metering faucets when installed in residential buildings shall not deliver more than 0.25 gallons per cycle.

4.303.1.4.4 Kitchen Faucets. The maximum flow rate of kitchen faucets shall not exceed 1.8 gallons per minute at 60 psi. Kitchen faucets may temporarily increase the flow above the maximum rate, but not to exceed 2.2 gallons per minute at 60 psi, and must default to a maximum flow rate of 1.8 gallons per minute at 60 psi.

Note: Where complying faucets are unavailable, aerators or other means may be used to achieve 4.303.2 STANDARDS FOR PLUMBING FIXTURES AND FITTINGS. Plumbing fixtures and fittings shall be installed in accordance with the California Plumbing Code, and shall meet the applicable standards referenced in Table 1701.1 of and packaging)

THIS TABLE COMPILES THE DATA IN SECTION 4.303.1, AND IS INCLUDED AS A CONVENIENCE FOR THE USER.

TABLE - MAXIMUM FIXTURE WATER USE

FIXTURE TYPE FLOW RATE SHOWER HEADS 2.0 GMP @ 80 PSI (RESIDENTIAL) LAVATORY FAUCETS MAX. 1.2 GPM @ 60 PSI (RESIDENTIAL) MIN. 0.8 GPM @20 PSI LAVATORY FAUCETS IN 0.5 GPM @ 60 PSI COMMON & PUBLIC USE AREAS KITCHEN FAUCETS 1.8 GPM @ 60 PSI METERING FAUCETS 0.25 GAUCYCLE WATER CLOSET 1.28 GAL/FLUSH URINALS 0.125 GAL/FLUSH

the California Plumbing Code.

4.304 OUTDOOR WATER USE 4.304.1 IRRIGATION CONTROLLERS. Automatic irrigation system controllers for landscaping provided by the builder and installed at the time of final inspection shall comply with the following:

1. Controllers shall be weather- or soil moisture-based controllers that automatically adjust irrigation in response to changes in plants' needs as weather conditions change. 2. Weather-based controllers without integral rain sensors or communication systems that account for local rainfall shall have a separate wired or wireless rain sensor which connects or communicates with the

controller(s). Soil moisture-based controllers are not required to have rain sensor input. Note: More information regarding irrigation controller function and specifications is available from the Irrigation Association.

DIVISION 4.4

EFFICIENCY MATERIAL CONSERVATION AND RESOURCE

4.406 ENHANCED DURABILITY AND REDUCED MAINTENANCE

4.406.1 RODENT PROOFING. Annular spaces around pipes, electric cables, conduits or other openings in sole/bottom plates at exterior walls shall be protected against the passage of rodents by closing such openings with cement mortar, concrete masonry or a similar method acceptable to the enforcing agency

4.408 CONSTRUCTION WASTE REDUCTION, DISPOSAL AND RECYCLING 4.408.1 CONSTRUCTION WASTE MANAGEMENT. Recycle and/or salvage for reuse a minimum of 65 percent of the non-hazardous construction and demolition waste in accordance with either Section 4.408.2, 4.408.3 or 4.408.4, or meet a more stringent local construction and demolition waste management ordinance.

Exceptions: 1. Excavated soil and land-clearing debris.

2. Alternate waste reduction methods developed by working with local agencies if diversion or recycle facilities capable of compliance with this item do not exist or are not located reasonably

close to the jobsite. 3. The enforcing agency may make exceptions to the requirements of this section when isolated jobsite are located in areas beyond the haul boundaries of the diversion facility. 4.408.2 CONSTRUCTION WASTE MANAGEMENT PLAN. Submit a construction waste management plan in conformance with Items 1 through 5. The construction waste management plan shall be updated as

necessary and shall be available during construction for examination by the enforcing agency. 1. Identify the construction and demolition waste materials to be diverted from disposal by recycling, reuse on the project or salvage for future use or sale.

2. Specify if construction and demolition waste materials will be sorted on-site (source separated) or bulk mixed (single stream).

3. Identify diversion facilities where the construction and demolition waste material collected will be taken. 4. Identify construction methods employed to reduce the amount of construction and demolition waste

5. Specify that the amount of construction and demolition waste materials diverted shall be calculated by weight or volume, but not by both.

4.408.3 WASTE MANAGEMENT COMPANY. Utilize a waste management company, approved by the enforcing agency, which can provide verifiable documentation that the percentage of construction and demolition waste material diverted from the landfill complies with Section 4.408.1 Note: The owner or contractor may make the determination if the construction and demolition waste materials

will be diverted by a waste management company 4.408.4 WASTE STREAM REDUCTION ALTERNATIVE ILR]. Projects that generate a total combined weight of construction and demolition waste disposed of in landfills, which do not exceed 3.4 lbs./sq.ft. of the building area shall meet the minimum 65% construction waste reduction requirement in Section 4.408.1 4.408.4.1 WASTE STREAM REDUCTION ALTERNATIVE. Projects that generate a total combined weight of construction and demolition waste disposed of in landfills, which do not exceed 2 lbs./sq.ft. of the building area, shall meet the minimum 65% construction waste reduction requirement in Section 4.408.1 4.408.5 DOCUMENTATION. Documentation shall be provided to the enforcing agency which demonstrates

> 1. Sample forms found in ·A Guide to the California Green Building Standards Code (Residential)R located at www.hcd.ca.gov/CALGreen.html may be used to assist in documenting compliance with this section.

compliance with Section 4.408.2, items 1 through 5, Section 4.408.3 or Section 4.408.4...

2. Mixed construction and demolition debris (C & D) processors can be located at the California Department of Resources Recycling and Recovery (CalRecycle). 4.410 BUILDING MAINTENANCE AND OPERATION

4.410.1 OPERATION AND MAINTENANCE MANUAL. At the time of final inspection, a manual, compact disc, webbased reference or other media acceptable to the enforcing agency which includes all of the following shall be placed in the building:

1. Directions to the owner or occupant that the manual shall remain with the building throughout the life cycle of the

2. Operation and maintenance instructions for the following: a. Equipment and appliances, including water-saving devices and systems, HVAC systems, photovoltaic systems, electric vehicle chargers, water-heating systems and other major appliances and equipment.

b. Roof and yard drainage, including gutters and downspouts. c. Space conditioning systems, including condensers and air filters. d. Landscape irrigation systems.

e. Water reuse systems. 3. Information from local utility, water and waste recovery providers on methods to further reduce resource consumption, including recycle programs and locations.

4. Public transportation and/or carpool options available in the area. 5. Educational material on the positive impacts of an interior relative humidity between 30-60 percent and what methods an occupant may use to maintain the relative humidity level in that range. 6. Information about water-conserving landscape and irrigation design and controllers which conserve

7. Instructions for maintaining gutters and downspouts and the importance of diverting water at least 5 feet away from the foundation. 8. Information on required routine maintenance measures, including, but not limited to, caulking,

painting, grading around the building, etc. 9. Information about state solar energy and incentive programs available. 10. A copy of all special inspections verifications required by the enforcing agency or this [California

Green Building Standards] code. 4.410.2 RECYCLING BY OCCUPANTS. Where 5 or more mullitamily dwelling units are constructed on a building site, provide readily accessible area(s) that serves all buildings on the site and is identified for the depositing, storage and collection of non-hazaradous materials for recycling, including (at a minimum) paper corrugated cardboard, glass, plastics, organic waster, and metals, or meet a lawfully enacted local recycling ordinance, if more restrictive.

DIVISION 4.5 ENVIRONMENTAL QUALITY

SECTION 4.501 GENERAL 4.501.1 Scope The provisions of this chapter shall outline means of reducing the quality of air contaminants that are odorous, irritating and/or harmful to the comfort and well being of a building's installers, occupants and neighbors. SECTION 4.502 DEFINITIONS

5.102.1 DEFINITIONS The following terms are defined in Chapter 2 (and are included here for reference) AGRIFIBER PRODUCTS. Agrifiber products include wheatboard, strawboard, panel substrates and door cores, not including furniture, fixtures and equipment (FF&E) not considered base building elements. COMPOSITE WOOD PRODUCTS. Composite wood products include hardwood plywood, particleboard and medium density fiberboard. "Composite wood products" does not include hardboard, structural plywood, structural panels, structural composite lumber, oriented strand board, glued laminated timber, prefabricated wood I-joists or finger-jointed lumber, all as specified in California Code of regulations {CCR}, title 17, Section

combustion from the outside atmosphere and discharges all flue gases to the outside atmosphere. MAXIMUM INCREMENTAL REACTIVITY (MIR). The maximum change in weight of ozone formed by adding a

compound to the "Base Reactive Organic Gas (ROG) Mixture" per weight of compound added, expressed to

hundredths of a gram (g O3/g ROC). Note: MIR values for individual compounds and hydrocarbon solvents are specified in CCR, Title 17, Sections 94700 MOISTURE CONTENT. The weight of the water in wood expressed in percentage of the weight of the oven-dry woad.

PRODUCT-WEIGHTED MIR (PWMIR). The sum of all weighted-MIR for all ingredients in a product subject to this article. The PWMIR is the total product reactivity expressed to hundredths of a gram of ozone formed per gram of product (excluding container Note: PWMIR is calculated according to equations found in CCR, Title 17, Section 94521 (a).

REACTIVE ORGANIC COMPOUND (ROC). Any compound that has the potential, once emitted, to contribute to ozone formation VOC. A volatile organic compound (VOC) broadly defined as a chemical compound based on carbon chains or rings with vapor pressures greater than 0.1 millimeters of mercury at room temperature. These compounds typically contain hydrogen and may contain oxygen, nitrogen and other elements. See CCR Title 17, Section 94508(a).

4.503 FIREPLACES 4.503.1 GENERAL. Any installed gas fireplace shall be a direct-vent sealed-combustion type. Any installed woodstove or pellet stove shall comply with U.S. EPA New Source Performance Standards (NSPS) emission limits as applicable, and shall have a permanent label indication they are certified to meet the emission limts. Woodstoves,

pellet stoves and fireplaces shall also comply with applicable local ordinances. 4.504 POLLUTANT CONTROL 4.504.1 COVERING OF DUCT OPENINGS & PROTECTION OF MECHANICAL EQUIPMENT DURING CONSTRUCTION. At the time of rough installation, during storage on the construction site and until final startup of the heating, cooling and ventilating equipment, all duct and other related air distribution component openings shall be covered with tape, plastic, sheet metal or other methods acceptable to the enforcing agency to reduce the amount of water, dust or debris which may enter the system. 4.504.2 FINISH MATERIAL POLLUTANT CONTROL. Finish materials shall comply with this section 4.504.2.1 Adhesives, Sealants and Caulks. Adhesives, sealant and caulks used on the project shall meet the requirements of the following standards unless more stringent local or regional air pollution or air quality management district rules apply:

1. Adhesives, adhesive bonding primers, adhesive primers, sealants, sealant primers and caulks shall comply with local or regional air pollution control or air quality management district rules where applicable or SCAQMD Rule 1168 voe limits, as shown in Table 4.504.1 or 4.504.2, as applicable. Such products also shall comply with the Rule 1168 prohibition on the use of certain toxic compounds (chloroform, ethylene dichloride, methylene chloride, perchloroethylene and tricloroethylene), except for aerosol products, as specified in Subsection 2 below. 2. Aerosol adhesives, and smaller unit sizes of adhesives, and sealant or caulking compounds (in units of product, less packaging, which do not weigh more than 1 pound and do not consist of more than 16 fluid ounces) shall comply with statewide voe standards and other requirements, including prohibitions on use of certain toxic compounds, of California Code of Regulations, Title 17,

commencing with section 94507. 4.504.2.2 Paints and Coatings. Architectural paints and coatings shall comply with VOC limits in Table 1 of the ARB Architectural Suggested Control Measure, as shown in Table 4.504.3, unless more stringent local limits apply. The VOC content limit for coatings that do not meet the definitions for the specialty coatings categories listed in Table 4.504.3 shall be determined by classifying the coating as a Flat, Nonflat or Nonflat-High Gloss coating, based on its gloss, as defined in subsections 4.21, 4.36, and 4.37 of the 2007 California Air Resources Board, Suggested Control Measure, and the corresponding Flat, Nonflat or Nonflat-High Gloss VOC limit in Table 4.504.3 shall apply.

4.504.2.3 Aerosol Paints and Coatings. Aerosol paints and coatings shall meet the Product-weighted MIR Limits for ROC in Section 94522(a)(2) and other requirements, including prohibitions on use of certain toxic compounds and ozone depleting substances, in Sections 94522(e)(1) and (f)(1) of California Code of Regulations, Title 17, commencing with Section 94520; and in areas under the jurisdiction of the Bay Area Air Quality Management District additionally comply with the percent VOC by weight of product limits of Regulation 8, Rule 49.

4.504.2.4 Verification. Verification of compliance with this section shall be provided at the request of the enforcing agency. Documentation *may* include, but is not limited to, the following:

1. Manufacturer's product specification.

TABLE 4.504.1 -ADHESIVE VOC LIMIT 1, 2 (Less Water and Less Exempt Compounds in Grams per Liter) ARCHITECTURAL APPLICATIONS CURRENT VOC LIMIT INDOOR CARPET ADHESIVES CARPET PAD ADHESIVES **OUTDOOR CARPET ADHESIVES** WOOD FLOORING ADHESIVES RUBBER FLOOR ADHESIVES SUBFLOOR ADHESIVES CERAMIC TILE ADHESIVES VCT & ASPHALT TILE ADHESIVES DRYWALL & PANEL ADHESIVES **COVE BASE ADHESIVES 50** MULTIPURPOSE CONSTRUCTION ADHESIVE STRUCTURAL GLAZING ADHESIVES SINGLE-PLY ROOF MEMBRANE ADHESIVES 250 OTHER ADHESIVES NOT LISTED SPECIALTY APPLICATIONS

2. Field verification of on-site product containers.

PVC WELDING CPVC WELDING ABS WELDING PLASTIC CEMENT WELDING ADHESIVE PRIMER FOR PLASTIC CONTACT ADHESIVE SPECIAL PURPOSE CONTACT ADHESIVE STRUCTURAL WOOD MEMBER ADHESIVE TOP & TRIM ADHESIVE SUBSTRATE SPECIFIC APPLICATIONS METAL TO METAL PLASTIC FOAMS POROUS MATERIAL (EXCEPT WOOD) WOOD **FIBERGLASS**

1. IF AN ADHESIVE IS USED TO BOND DISSIMILAR SUBSTRATES TOGETHER, THE ADHESIVE WITH THE HIGHEST VOC CONTENT SHALL BE ALLOWED. 2. FOR ADDITIONAL INFORMATION REGARDING METHODS TO MEASURE THE VOC CONTENT SPECIFIED IN THIS TABLE, SEE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT RULE 1168.

TABLE 4.504.2 - SEALANT VOC LIMIT (Less Water and Less Exempt Compounds in Grams per Liter) SEALANTS **CURRENT VOC LIMIT** ARCHITECTURAL MARINE DECK NONMEMBRANE ROOF ROADWAY 250 SINGLE-PLY ROOF MEMBRANE OTHER SEALANT PRIMERS ARCHITECTURAL NON-POROUS POROUS MODIFIED BITUMINOUS MARINE DECK OTHER

TABLE 4.504.3-VOC CONTENT LIMITS FOR ARCHITECTURAL COATINGS 2,3 GRAMS OF VOC PER LITER OF COATING, LESS WATER & LESS EXEMPT COMPOUNDS COATING CATEGORY CURRENT VOC LIMIT

FLAT COATINGS NON-FLAT COATINGS NON FLAT-HIGH GLOSS COATINGS SPECIALTY COATINGS ALUMINUM ROOF COATINGS BASEMENT SPECIAL TY COATINGS BITUMINOUS ROOF COATINGS BITUMINOUS ROOF PRIMERS BOND BREAKERS CONCRETE CURING COMPOUNDS CONCRETE/MASONRY SEALERS DRIVEWAY SEALERS DRY FOG COATINGS FAUX FINISHING COATINGS FIRE RESISTIVE COATINGS

FLOOR COATINGS FORM-RELEASE COMPOUNDS GRAPHIC ARTS COATINGS (SIGN PAINTS) HIGH TEMPERATURE COATINGS INDUSTRIAL MAINTENANCE COATINGS LOW SOLIDS COATINGS, MAGNESITE CEMENT COATINGS MASTIC TEXTURE COATINGS METALLIC PIGMENTED COATINGS MULTICOLOR COATINGS

PRETREATMENT WASH PRIMERS PRIMERS, SEALERS, & UNDERCOATERS REACTIVE PENETRATING SEALERS RECYCLED COATINGS ROOF COATINGS **RUST PREVENTATIVE COATINGS** SHELLACS

CLEAR OPAQUE SPECIAL TY PRIMERS, SEALERS & UNDERCOATERS STAINS STONE CONSOLIDANTS SWIMMING POOL COATINGS TRAFFIC MARKING COATINGS TUB & TILE REFINISH COATINGS

WATERPROOFING MEMBRANES WOOD COATINGS WOOD PRESERVATIVES ZINC-RICH PRIMERS 1. GRAMS OF VOC PER LITER OF COATING, INCLUDING WATER &

EXEMPT COMPOUNDS 2. THE SPECIFIED LIMITS REMAIN IN EFFECT UNLESS REVISED LIMITS ARE LISTED IN SUBSEQUENT COLUMNS IN THE TABLE. 3. VALUES IN THIS TABLE ARE DERIVED FROM THOSE SPECIFIED BY THE CALIFORNIA AIR RESOURCES BOARD, ARCHITECTURAL COATINGS SUGGESTED CONTROL MEASURE, FEB. 1, 2008. MORE INFORMATION IS AVAILABLE FROM THE AIR RESOURCES BOARD.

TABLE 4.504.5 - FORMALDEHYDE LIMITS, MAXIMUM FORMALDEHYDE EMISSIONS IN PARTS PER MILLION PRODUCT CURRENT LIMIT HARDWOOD PLYWOOD VENEER CORE HARDWOOD PLYWOOD COMPOSITE CORE 0.05 PARTICLE BOARD MEDIUM DENSITY FIBERBOARD 0.11 THIN MEDIUM DENSITY FIBERBOARD,

1. VALUES IN THIS TABLE ARE DERIVED FROM THOSE SPECIFIED BY THE CALIF. AIR RESOURCES BOARD, AIR TOXICS CONTROL MEASURE FOR COMPOSITE WOOD AS TESTED IN ACCORDANCE WITH ASTM E 1333. FOR ADDITIONAL INFORMATION, SEE CALIF. CODE OF REGULATIONS, TITLE 17, SECTIONS 93120 THROUGH 93120.12.

2. THIN MEDIUM DENSITY FIBERBOARD HAS A MAXIMUM THICKNESS OF 5/16" (8 MM).

4.504.3 CARPET SYSTEMS. All carpet installed in the building interior shall meet the testing and product requirements of at least one of the following Carpet and Rug Institute's Green Label Plus Program. 2. California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental

Chambers" Version 1.1, February 2010 (also known as Specification 01350). 3. NSF/ANSI 140 at the Gold level. 4. Scientific Certifications Systems Indoor AdvantageTM Gold.

4.504.3.1 Carpet cushion. All carpet cushion installed in the building interior shall meet the requirements of the Carpet and Rug Institute's Green Label program. 4.504.3.2 Carpet adhesive. All carpet adhesive shall meet the requirements of Table 4.504.1. 4.504.4 RESILIENT FLOORING SYSTEMS. Where resilient flooring is installed, at least 80% of floor area receiving resilient flooring shall comply with one or more of the following: 1. Products compliant with the California Department of Public Health, "Standard Method for

the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.1, February 2010 (also known as Specification 01350), certified as a CHPS Low-Emitting Material in the Collaborative for High Performance Schools (CHPS) High Performance Products Database

2. Products certified under UL GREENGUARD Gold (formerly the Greenguard Children & 3. Certification under the Resilient Floor Covering Institute (RFCI) FloorScore program. 4. Meet the California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers", Version 1.1, February 2010 (also known as Specification 01350).

4.504.5 COMPOSITE WOOD PRODUCTS. Hardwood plywood, particleboard and medium density fiberboard composite wood products used on the interior or exterior of the buildings shall meet the requirements for formaldehyde as specified in ARB's Air Toxics Control Measure for Composite Wood (17 CCR 93120 et seq.), by or before the dates specified in those sections, as shown in Table 4.504.5 4.504.5.1 Documentation. Verification of compliance with this section shall be provided as requested by the enforcing agency. Documentation shall include at least one of the following:

1. Product certifications and specifications. 2. Chain of custody certifications. 3. Product labeled and invoiced as meeting the Composite Wood Products regulation (see CCR, Title 17, Section 93120, et seq.).

4. Exterior grade products marked as meeting the PS-1 or PS-2 standards of the Engineered Wood Association, the Australian AS/NZS 2269, European 636 3S standards, and Canadian CSA 0121, CSA 0151, CSA 0153 and CSA 0325 standards. 5. Other methods acceptable to the enforcing agency.

4.505 INTERIOR MOISTURE CONTROL

4.505.1 General. Buildings shall meet or exceed the provisions of the California Building Standards Code. 4.505.2 CONCRETE SLAB FOUNDATIONS. Concrete slab foundations required to have a vapor retarder by California Building Code, Chapter 19, or concrete slab-on-ground floors required to have a vapor retarder by the California Residential Code, Chapter 5, shall also comply with this section.

4.505.2.1 Capillary break. A capillary break shall be installed in compliance with at least one of the

1. A 4-inch (101.6 mm) thick base of 112 inch (12. 7mm) or larger clean aggregate shall be provided with a vapor barrier in direct contact with concrete and a concrete mix design, which will address bleeding, shrinkage, and curling, shall be used. For additional information, see American Concrete Institute, ACI 302.2R-06.

2. Other equivalent methods approved by the enforcing agency 3. A slab design specified by a licensed design professional.

4.505.3 MOISTURE CONTENT OF BUILDING MATERIALS. Building materials with visible signs of water damage shall not be installed. Wall and floor framing shall not be enclosed when the framing members exceed 19 percent moisture content. Moisture content shall be verified in compliance with the following: 1. Moisture content shall be determined with either a probe-type or contact-type moisture meter.

Equivalent moisture verification methods may be approved by the enforcing agency and shall satisfy requirements found in Section 101.8 of this code. 2. Moisture readings shall be taken at a point 2 feat (610 mm) to 4 feat (1219 mm) from the grade stamped and of each piece verified.

3. At least three random moisture readings shall be performed on wall and floor framing with documentation acceptable to the enforcing agency provided at the time of approval to enclose the wall and floor framing. Insulation products which are visibly wet or have a high moisture content shall be replaced or allowed to dry prior to enclosure in wall or floor cavities. Wet-applied insulation products shall follow the manufacturers' drying recommendations prior to enclosure.

4.506 INDOOR AIR QUALITY AND EXHAUST 4.506.1 Bathroom exhaust fans. Each bathroom shall be mechanically ventilated and shall comply with the

1. Fans shall be ENERGY STAR compliant and be ducted to terminate outside the building. 2. Unless functioning as a component of a whole house ventilation system, fans must be controlled by a

humidity control. a. Humidity controls shall be capable of adjustment between a relative humidity range less than or equal to 50% to a maximum of 80%. A humidity control may utilize manual or automatic means of b. A humidity control may be a separate component to the exhaust fan and is not required to be

1. For the purposes of this section, a bathroom is a room which contains a bathtub, shower or tub/shower combination.

2. Lighting integral to bathroom exhaust fans shall comply with the California Energy Code.

4.507 ENVIRONMENTAL COMFORT

integral (i.e., built-in)

4.507.2 HEATING AND AIR-CONDITIONING SYSTEM DESIGN. Heating and air conditioning systems shall be sized, designed and have their equipment selected using the following methods:

1. The heat loss and heat gain is established according to ANSI/ACCA 2 Manual J - 2011 (Residential Load Calculation), ASHRAE handbooks or other equivalent design software or methods. 2. Duct systems are sized according to ANSI/ACCA 1 Manual D - 2014 (Residential Duct Systems), ASHRAE handbooks or other equivalent design software or methods. 3. Select heating and cooling equipment according to ANSI/ACCA 3 Manual S - 2014 (Residential

Equipment Selection), or other equivalent design software or methods. Exception: Use of alternate design temperatures necessary lo ensure the system functions are edacceptable.

INSTALLER & SPECIAL INSPECTOR QUALIFICATIONS 702 QUALIFICATIONS 702.1 INSTALLER TRAINING, HVAC system installers shall be trained and certified in the proper installation of HVAC systems including ducts and equipment by a nationally or regionally recognized training or certification program. Uncertified persons may perform HVAC installations when under the direct supervision and responsibility of a person trained and certified to install HVAC systems or contractor licensed to install HVAC systems. Examples of acceptable HVAC training and certification programs include but are not limited to the

1. State certified apprenticeship programs.

5. Other programs acceptable to the enforcing agency.

2. Public utility training programs. 3. Training programs sponsored by trade, labor or statewide energy consulting or verification 4. Programs sponsored by manufacturing organizations.

702.2 SPECIAL INSPECTION [HCD]. When required by the enforcing agency, the owner or the responsible entity acting as the owner's agent shall employ one or more special inspectors to provide inspection or other duties necessary to substantiate compliance with this code. Special inspectors shall demonstrate competence to the satisfaction of the enforcing agency for the particular type of inspection or task to be perfonned. In addition to other certifications or qualifications acceptable to the enforcing agency, the following certifications or education may be considered by the enforcing agency when evaluating the qualifications of a special inspector:

1. Certification by a national or regional green building program or standard publisher. 2. Certification by a statewide energy consulting or verification organization, such as HERS raters, building performance contractors, and home energy auditors. 3. Successful completion of a third party apprentice training program in the appropriate trade. 4. Other programs acceptable to the enforcing agency.

1. Special inspectors shall be independent entities with no financial interest in the materials or the project they are inspecting for compliance with this code. 2. HERS raters are special inspectors certified by the California Energy Commission (CEC) to rate homes in California according to the Home Energy Rating System (HERS).

[BSC] When required by the enforcing agency, the owner or the responsible entity acting as the owner's agent shall employ one or more special inspectors to provide inspection or other duties necessary to substantiate compliance with this code. Special inspectors shall demonstrate competence to the satisfaction of the enforcing agency for the particular type of inspection or task to be performed. In addition, the special inspector shall have a certification from a recognized state, national or international association, as determined by the local agency. The area of certification shall be closely related to the primary job function, as determined by the local agency.

Note: Special inspectors shall be independent entities with no financial interest in the materials or project they are inspecting for compliance with this code.

703 VERIFICATIONS

703.1 DOCUMENTATION. Documentation used to show compliance with this code shall include but is not limited to, construction documents, plans, specifications, builder or installer certification, inspection reports, or other methods acceptable to the enforcing agency which demonstrate substantial conformance. When specific documentation or special inspection is necessary to verify compliance, that method of compliance will be specified in the appropriate section or identified applicable checklist.

moving forward 1825 STATE STREET STE 102 SANTA BARBARA, CA 93101

T: 805.845.6601 E: INFO@WINDWARDENG.COM

MARCHETTI ADU 221 LA PLATA SANTA BARBARA, CA 93109

PROJECT

CLIENT

DAVID MARCHETTI 221 LA PLATA SANTA BARBARA, CA 93109

SHEET INDEX

G-001 GENERAL AND SITE PLAN G-002 ENERGY ANALYSIS

G-003 ENERGY ANALYSIS G-004 GREEN CODE

G-005 GENERAL NOTES A-101 PLAN ELEV SECT

A-601 SCHEDULES S-001 GENERAL FOUNDATION/ 1ST STORY S-101 FRAMING PLAN

S-502 CONCRETE DETAILS S-503 FRAMING DETAILS S-504 FRAMING DETAILS

S-501 CONCRETE DETAILS

S-506 SW & SHEATHING DETAILS P-101 PLUMBING PLAN

M-101 MECH PLAN

S-505 FRAMING DETAILS

4/9/2020 DATES

1/3/2020 03/03/2020 (E) FENCE SUBMITTAL 03/03/2020 DART RESUBMITTAL 03/18/2020 RESUBMITTAL

SCALE AS NOTED CREATED BY: WDS

SHEET

GREEN CODE

C- CONSTRUCTION NOTES GENERAL THESE NOTES CONVEY MINIMUM CONSTRUCTION REQUIREMENTS AND ARE TO BE USED WHERE THE APPLICABLE CONDITIONS OCCUR. MORE STRINGENT REQUIREMENTS STIPULATED ELSEWHERE WITHIN THESE DOCUMENTS OR WITHIN RELEVANT MANUFACTURER'S INSTALLATION INSTRUCTIONS WILL SUPERSEDE. UNLESS OTHERWISE NOTED, ALL MATERIALS AND EQUIPMENT TO BE INSTALLED PER MANUFACTURER'S INSTRUCTIONS. ADDRESSES SHALL BE PLAINLY VISIBLE AND LEGIBLE FROM THE STREET OR ROAD FRONTING THE PROPERTY. ADDRESS NUMBERS SHALL BE 4 INCHES IN HEIGHT, 1/2" MINIMUM STROKE WIDTH AND OF CONTRASTING COLOR TO THEIR BACKGROUND. WHERE ADDRESS CANNOT BE VIEWED FROM PUBLIC WAY, A MONUMENT OR POLE SHALL BE USED. CRAWL SPACE CLEARANCE MAINTAIN MINIMUM CLEARANCE OF 18" BETWEEN WOOD JOISTS AND GRADE WITH 12" MINIMUM CLEARANCE FOR GIRDERS, OR USE CRAWL SPACE ACCESS ACCESS TO BE MINIMUM 24" WIDE BY 18" HIGH. OPENING SHALL BE CLEAR OF PIPES AND OBSTRUCTIONS. ACCESS OPENINGS SHALL BE EFFECTIVELY SCREENED OR COVERED. UNDER-FLOOR VENTILATION UNDER-FLOOR VENTILATION TO BE VENTILATED BY AN APPROVED MECHANICAL MEANS OR BY OPENINGS INTO THE UNDER-FLOOR AREA WALLS. OPENINGS SHALL HAVE A NET AREA OF NOT LESS THAN ONE (1) SF FOR EACH 150 SF OF UNDER-FLOOR AREA. OPENINGS SHALL BE LOCATED AS CLOSE TO CORNERS AS PRACTICAL AND SHALL PROVIDE CROSS VENTILATION. THE REQUIRED AREA OF SUCH OPENINGS SHALL BE APPROXIMATELY EQUALLY DISTRIBUTED ALONG THE LENGTH OF AT LEAST TWO OPPOSITE SIDES. OPENINGS SHALL BE COVERED WITH CORROSION-RESISTANT WIRE MESH WITH MESH OPENINGS OF 1/4 INCH IN DIMENSION. IN HIGH FIRE HAZARD ZONES OPENINGS TO HAVE A MINIMUM SIZE OF 1/16" AND MAXIMUM SIZE NOT TO EXCEED 1/8". ATTIC ACCESS AN ATTIC ACCESS OPENING SHALL BE PROVIDED TO ATTICS OF BUILDINGS WITH COMBUSTIBLE CEILING OR ROOF CONSTRUCTION. EXCEPTION: ATTICS WITH A MAXIMUM VERTICAL HEIGHT OF LESS THAN 30". ATTICS THAT INCLUDE MECHANICAL EQUIPMENT SHALL HAVE APPROPRIATELY SIZED ACCESS OPENINGS TO ALLOW REMOVAL OF EQUIPMENT FOR SERVICING OR REPLACEMENT, BUT SHALL NOT BE LESS THAN 22" X 30". OPENING SHALL BE LOCATED IN A CORRIDOR, HALLWAY OR OTHER READILY ACCESSIBLE LOCATION. 30" MINIMUM UNOBSTRUCTED HEADROOM IN THE ATTIC SPACE SHALL BE PROVIDED AT OR ABOVE THE ACCESS OPENING. PROVIDE WEATHER-STRIPPING AT ACCESS PANEL TO PREVENT BACK DRAFT. ROOF VENTILATION ENCLOSED RAFTER SPACES THAT ARE CREATED WHERE CEILINGS ARE APPLIED DIRECTLY TO THE UNDERSIDE OF RAFTERS SHALL BE INDIVIDUALLY VENTED THE NET FREE VENTILATING AREA SHALL NOT BE LESS THAN 1/150 OF THE AREA OF THE SPACE VENTILATED UNLESS IN DESIGNATED HIGH FIRE AREA, VENTING SHALL BE ACCOMPLISHED BY MEANS OF EAVE VENTS AND A RIDGE VENT A MINIMUM OF 1" OF AIR SPACE SHALL BE PROVIDED BETWEEN THE INSULATION AND THE ROOF SHEATHING EXCEPTION: USE OF ICYNENE INSULATION AT RAFTER BAYS NEGATES NEED FOR VENTILATION SAFETY GLAZING REQUIREMENTS GLAZING IN SLIDING AND SWINGING DOORS (EXCEPTION: WARDROBE DOORS). GLAZING IN STORM DOORS. GLAZING IN DOORS AND ENCLOSURES FOR HOT TUBS, WHIRLPOOLS, SAUNAS, STEAM ROOMS, BATHTUBS AND SHOWERS. GLAZING IN ANY PORTION OF A BUILDING WALL ENCLOSING THESE COMPARTMENTS WHERE THE BOTTOM EXPOSED EDGE OF THE GLAZING IS LESS THAN 60 INCHES ABOVE A STANDING SURFACE AND DRAIN INLET. GLAZING IN FIXED OR OPERABLE PANELS ADJACENT TO A DOOR WHERE THE NEAREST EXPOSED EDGE OF THE GLAZING IS WITHIN A 24-INCH ARC OF EITHER VERTICAL EDGE OF THE DOOR IN A CLOSED POSITION AND WHERE THE BOTTOM EXPOSED EDGE OF THE GLAZING IS LESS THAN 60 INCHES ABOVE THE WALKING SURFACE. WHERE GLAZING WITH PANES LARGER THAN 9 SF, A BOTTOM EDGE WITHIN 18" OF THE FLOOR, A TOP EDGE MORE THAN 36" ABOVE THE FLOOR, & A WALKING SURFACE WITHIN 36" HORIZONTALLY OF GLAZING. JNLESS NOTED OTHERWISE, AS MUCH AS IS PRACTICABLE, TOPS OF WINDOWS ARE TO FLUSH WITH TOPS OF NEARBY DOORS. PROVIDE 3/8" MINIMUM CLEARANCE BETWEEN BOTTOM OF INTERIOR DOORS AND FINISH FLOOR HEIGHTS TO ALLOW FOR AIR CIRCULATION RELATED TO FAU AND VENTILATION FAN(S). CIRCULATION RELATED TO FAU AND VENTILATION FAN(S). EGRESS WINDOWS REQUIRED AT ALL BEDROOMS. MIN NET OPENING TO BE 5.7 SF W/MIN HT OF 24", MIN WIDTH OF 20", AND SILL HT NO MORE THAN 44" ABOVE FLOOR. EXCEPTION: MIN GRADE-FLOOR NET OPENING TO BE 5.0 SF. A FLOOR OR LANDING, BEING AT THE SAME ELEVATION, IS REQUIRED AT EACH SIDE OF A DOOR. EXCEPTION: WITH DOORS SERVING AN INDIVIDUAL DWELLING UNIT, A LANDING AT AN EXTERIOR DOOR MAY BE UP TO 7.75" LOWER THAN TOP OF THRESHOLD PROVIDED THE DOOR DOES NOT SWING OVER THE LANDING. LANDINGS TO BE ≥ 44" IN THE DIRECTION OF TRAVEL AND ≥ THE WIDTH OF THE DOOR OR STAIRWAY SERVED; WHICHEVER IS GREATER. EXCEPTION: LANDINGS SERVING INDIVIDUAL RESIDENCE MUST BE ≥ 36" IN THE DIRECTION FIRAVEL. THRESHOLD SHALL BE NO HIGHER THAN 0.5". THRESHOLDS EXCEEDING 0.25" SHALL BE BEVELED WITH A SLOPE NOT TO EXCEED 50% OORS SERVING INDIVIDUAL DWELLING UNITS OR A PRIVATE GARAGE MAY OPEN AT AN INTERIOR FLIGHT OF STAIRS, PROVIDED THE OOR DOES NOT SWING OVER THE STAIRS. LEVATIONS IN FLOOR LEVEL DUE TO FINISH MATERIALS SHALL NOT EXCEED 0.5". CHANGES IN LEVEL GREATER THAN 0.5" SHALL BE AMPED AND COMPLY WITH REQUIREMENTS OF 11B-405 OR 11B-406 AS APPLICABLE NO, DOOR HANDLES TO BE LEVER TYPE, CURVED, & RETURN TO WITHING 0.5" OF THE DOOR. 'R' & 'M' OCCUPANCIES WITH UP TO 10 EGRESS DOORS, WITH BUILDING OCCUPANT LOADS > 50, SHALL SWING OUT & OPERATE WITH 'PANIC' HARDWARE UNO IN ENERGY REPORT OR ON PLANS, (N) FENESTRATION TO HAVE MAX U-FACTOR OR 0.32 & MAX SHGC OF 0.25 PROVIDE SOLDERED DOOR PAN AT EXTERIOR DOORS NATURAL LIGHT - GLAZING AREAS IN A HABITABLE ROOM SHALL HAVE AN AGGREGATE AREA >= TO 8% OF THE FLOOR AREA. NATURAL VENTILATION - OPENABLE AREAS OF DOORS AND WINDOWS TO THE OUTDOORS OF HABITABLE ROOMS SHALL HAVE AN AGGREGATE AREA >= 4% OF THE FLOOR AREA ONE OR TWO FAMILY RESIDENCE - NOT LESS THAN 1/2" GYPSUM AT GARAGE SIDE REQUIRED BETWEEN ATTACHED GARAGE AND HABITABLE LIVING SPACE. WALL MUST EXTEND UP TO UNDERSIDE OF ROOF SHEATHING. ONE OR TWO FAMILY RESIDENCE GARAGE CEILING WITH HABITABLE SPACE ABOVE - (2) LAYERS OF 1/2" TYPE 'X' ON CEILING IF TJI CEILING JOISTS. 1 LAYER OF 5/8" TYPE 'X' GYPSUM ON CEILING IF FIR CEILING JOISTS. 2-HR SEPARATION REQUIRED FOR MULTI-FAMILY RESIDENCE F NON-SPRINKLERED TIGHT FITTING, SELF-CLOSING, SOLID-WOOD DOOR WITH MINIMUM THICKNESS OF 1-3/8" REQUIRED AT DOOR OPENINGS BETWEEN ATTACHED GARAGE AND HABITABLE SPACE. 20-MINUTE RATED DOOR OKAY. OR PRE-MANUFACTURED FIREPLACE UNIT, REFER TO INSTALLATION INSTRUCTIONS FOR SPECIFIC CLEARANCE, COMBUSTION AIR, & NSTALLATION REQUIREMENTS. INSTALLATION REQUIREMENTS. METAL OR GLASS DOORS, COVERING ENTIRE FIREBOX OPENING, THAT CAN CLOSE WHILE FIRE IS BURNING REQUIRED. 2" MIN. CLR. BETWEEN COMBUSTIBLE MATERIALS & FIREPLACE, SMOKE CHAMBER, OR CHIMNEY WALLS. 6" MIN. CLR. BETWEEN FIREPLACE OPENING & COMBUSTIBLE MATERIALS. COMBUSTIBLE MATERIALS WITHIN 12" OF OPENING SHALL PROJECT NO MORE THAN 1/8" FOR EACH 1" CLR. FROM OPENING. HEARTHS SHALL EXTEND AT LEAST 16" FROM THE FRONT OF FIREPLACE AND 8" BEYOND EACH SIDE OF FIREPLACE OPENING, OR 20" & 12" RESPECTIVELY, IF OPENING IS >= 6 SF. HEARTHS TO BE BRICK, STONE, CONCRETE OR OTHER APPROVED NONCOMBUSTIBLE MATERIAL, SHALL BE AT LEAST 4" THICK, AND SUPPORTED BY NONCOMBUSTIBLE MATERIALS OR SELF-SUPPORTING. INTERIOR HEARTHS SHALL BE READILY DISTINGUISHABLE FROM THE SURROUNDING FLOOR. SITE-BUILT MASONRY FIREPLACES TO BE FABRICATED BY LICENSED PROFESSIONALS FAMILIAR WITH THE APPROPRIATE CODE, ENERGY, AND SAFETY REQS. CHIMNEYS TO EXTEND AT LEAST 2" AROVE ANY PORTION OF THE STRUCTURE MITCHING AND LODGE CONTAINS. 12.9 CHIMNEYS TO EXTEND AT LEAST 2' ABOVE ANY PORTION OF THE STRUCTURE WITHIN 10' HORIZONTALLY EXTERIOR WALLS TO BE COVERED WITH TYVEK HOMEWRAP (ICC ER-4000) & BE INSTALLED PER MFG INSTALLATION INSTRUCTIONS. WINDOWS AND DOORS FLASHING PER TYVEK INSTALLATION INSTRUCTIONS. PROVIDE SOLDERED DOOR PAN AT EXTERIOR DOORS ROUFING ROOF COVERING TO HAVE, MINIMUM CLASS A RATING ROOF ASSEMBLY SHALL BE LISTED BY AN APPROVED TESTING AGENCY AND INSTALLED PER MFG INSTRUCTIONS CLAY ROOF TILES TO BE INSTALLED PER TILE ROOFING INSTITUTE (WWW.TILEROOFING.ORG) INSTALLATION INSTRUCTIONS (ICC-ES ESR-2015P) ASPHALT SHINGLES NOT ALLOWED ON ROOF PITCHES <2:12. UNO, INSTALL CERTAINTEED SHINGLES ICC-ES ESR-3537 FOR ROOF PITCHES ≥2:12 AND <4:12, ASPHALT STRIP SHINGLES MAY BE INSTALLED, PROVIDED THE SHINGLES ARE APPROVED SELFSEALING OR ARE HAND SEALED AND ARE INSTALLED WITH AN UNDERLAYMENT CONSISTING OF TWO LAYERS OF NON-PERFORATED TYPE 15 FELT APPLIED SHINGLE FASHION. STARTING WITH AN 18-INCH-WIDE (457 MM) SHEET AND A 36-INCH-WIDE (914 MM) SHEET OVER IT AT THE EAVES, EACH SUBSEQUENT SHEET SHALL BE LAPPED 19 INCHES (483 MM) HORIZONTALLY UNO PER PLAN, MINERAL-SURFACED ROLL ROOFING TO BE USED AT SLOPES ≥ 8% AND < 17% (2:12) UNO PER PLAN, BUILT-UP ROOFING TO BE USED AT SLOPES ≥ 2% AND < 8% (1:12) UNO PER PLAN, COAL-TAR BUILT-UP ROOFING TO BE USED AT SLOPES ≥ 1% AND < 2% (1/4:12) UNO PER PLAN, INSTALL 2-LAYERS GRADE 'D' BLDG PAPER OVER ROOF SHEATHING WHEN PROVIDED, VALLEY FLASHINGS SUBJECT TO CRC SECTION R327 ARE NOT TO BE LESS THAN 26 GALVANIZED SHEET GAUGE CORROSION RESISTANT METAL INSTALLED OVER A MIN 36" WIDE UNDERLAYMENT CONSISTING OF ONE LAYER OF MIN 72 POUND MINERAL SURFACED NON-PERFORATED CAP SHEET COMPLYING WITH ASTM D3909 INSTALLED OVER THE COMBUSTIBLE DECKING ENERGY REQUIREMENTS SEE CF-1R & MF-1R FORMS SPECIFYING THE REQUIRED/MANDATORY RESIDENTIAL ENERGY FEATURES FOR: WALL/CEILING INSULATION, WINDOW AREAS AND TYPES, HVAC SYSTEMS AND EFFICIENCY, DUCT INSULATION AND TESTING, LIGHTING TYPE AND SWITCHING, AND PIPE/HEATER INSULATION. CONTRACTOR TO PROVIDE COMPLETED CF-2R INSTALLATION FORMS UPON FINAL INSTALLATION OF ALL ENERGY SYSTEMS. HERS RATER TO PROVIDE CF-3R HERS VERIFICATION FORMS ONCE INSTALLATION OF ALL THE ASSOCIATED BUILDING ASSEMBLY OR ENERGY SYSTEMS HAVE BEEN INSTALLED. UNO, MINIMUM INSULATION REQUIREMENTS TO BE: WALLS - R19, RAISED FLOORS - R-19, CEILINGS - R-30. INSTALL R-19 INSULATION IN GARAGE CEILING BENEATH HABITABLE SPACE. MORE STRINGENT REQUIREMENTS STIPULATED ELSEWHERE WITHIN THESE DOCUMENTS FAU ATTIC CONSTRUCTION REQUIREMENTS ATTIC ACCESS TO BE A MINIMUM OF 30"X22" OR SIZE NECESSARY TO FACILITATE INSTALLATION OR SUBSEQUENT REPLACEMENT OF THE EQUIPMENT; WHICHEVER IS GREATER. AN UNOBSTRUCTED PASSAGEWAY WHICH IS NO MORE THAN 20 FT IN LENGTH, HAS CONTINUOUS SOLID FLOORING NOT LESS THAN 24" WIDE, AND INCLUDES A SERVICE SPACE AT LEAST 30"X30" AT THE FRONT OR SERVICE SIDE OF THE EQUIPMENT. CHECK INSTALLATION INSTRUCTIONS FOR MINIMUM COMBUSTIBLE AIR REQUIREMENTS. ADDITIONAL ATTIC VENTILATION MAY BE UNLESS OTHERWISE NOTED IN INSTALLATION INSTRUCTIONS, MAINTAIN MINIMUM 3" CLEARANCE FROM TOP, BACK & SIDES (TOTAL OF BOTH SIDES SHALL BE AT LEAST 12"). INSTALL GYPSUM PER GYPSUM ASSOCIATION INSTALLATION INSTRUCTIONS GA-216-07, AT WWW.GYPSUM.ORG\ WIDTH - MIN 36" STAIR FOR OCCUPANT LOADS < 50. MIN 44" FOR HIGHER OCCUPANCY LOADS, UNO PER FLOOR OR EGRESS PLAN. MIN 48" IF STAIR UNIT IS PART OF AN ACCESSIBLE MEANS OF EGRESS HEADROOM - MIN 80" CLEARANCE AT NOSING RISER - 4" TO 7" RISER HEIGHT WITH MAX VARIANCE IN HEIGHT OF 3/8". RISER TO BE VERTICAL & SOLID TREAD - 11" MIN DEPTH WITH MAX VARIANCE OF 3/8". RADIUS AT LEADING EDGE OF TREAD ≤ 9/16" NOSING PROJECTION OVER TREAD BELOW ≤ 1-1/4" EXTERIOR STUCCO OR PLASTER CEMENT WATER-RESISTIVE BARRIER - PROVIDE MIN 2 LAYERS OF GRADE D PAPER OR EQUIVALENT METAL LATH & LATH ATTACHMENTS TO BE OF CORROSION-RESISTANT MATERIAL PROVIDE MIN 3 COATS, @ A MIN THICKNESS OF 7/8" (TEXTURE EXCLUDED) IF OVER METAL LATH OR WIRE FABRIC. 2 COATS ALLOWED IF OVER CONCRETE OR MASONRY **GREEN BUILDING STANDARDS** RODENT PROOFING. ANNULAR SPACES AROUND PIPES, ELECTRIC CABLES, CONDUITS OR OTHER OPENINGS IN SOLE/BOTTOM PLATES AT

EXTERIOR WALLS SHALL BE PROTECTED AGAINST THE PASSAGE OF RODENTS BY CLOSING SUCH OPENINGS WITH CEMENT MORTAR,

A MINIMUM OF 65 PERCENT OF THE CONSTRUCTION WASTE GENERATED AT THE SITE SHALL BE DIVERTED TO RECYCLE OR SALVAGE.

BEFORE FINAL INSPECTION, A COMPLETE OPERATION AMD MAINTENANCE MANUAL SHALL BE PROVIDED TO THE BUILDING OCCUPANT OR OWNER. CONTRACTOR OR OWNER SHALL SUBMIT A SIGNED AFFIDAVIT THAT CONFIRMS THE DELIVERY OF SUCH. (SECTION 4.410.1) A CERTIFICATE SHALL BE COMPLETED AND SIGNED BY THE GENERAL CONTRACTOR, SUBCONTRACTOR, OR BUILDING OWNER CERTIFYING THAT THE PAINTS, STAINS, AND ADHESIVES COMPLY WITH THE REQUIREMENTS OF THE CALIFORNIA GREEN CODE A CERTIFICATE SHALL BE COMPLETED AND SIGNED BY THE GENERAL CONTRACTOR, SUBCONTRACTOR, OR BUILDING OWNER

CERTIFYING THAT THE RESILIENT FLOORING, COMPOSITE WOOD PRODUCTS, PLYWOOD, AND/OR PARTICLE BOARD COMPLY WITH THE

CONCRETE MASONRY OR A SIMILAR METHOD ACCEPTABLE TO THE ENFORCING AGENCY. (SECTION 4.406.1)

VOC LIMITS AND FORMALDEHYDE LIMITS SPECIFIED IN THE NOTES ABOVE AND THE CALIFORNIA GREEN CODE.

E- ELECTRICAL NOTES THESE NOTES CONVEY MINIMUM CONSTRUCTION REQUIREMENTS AND ARE TO BE USED WHERE THE APPLICABLE CONDITIONS OCCUR. MORE STRINGENT REQUIREMENTS STIPULATED ELSEWHERE WITHIN THESE DOCUMENTS OR WITHIN RELEVANT MANUFACTURER'S INSTALLATION INSTRUCTIONS WILL SUPERSEDE UNLESS OTHERWISE NOTED, ALL MATERIALS AND EQUIPMENT TO BE INSTALLED PER THE APPLICABLE PROVISIONS OF THESE DOCUMENTS AND THE OVERCURRENT DEVICES SHALL BE READILY ACCESSIBLE
OVERCURRENT DEVICES SHALL NOT BE LOCATED WHERE THEY WILL BE EXPOSED TO PHYSICAL DAMAGE
OVERCURRENT DEVICES SHALL NOT BE IN THE VICINITY OF EASILY IGNITABLE MATERIALS, SUCH AS IN A CLOTHES CLOSET
OVER CURRENT DEVICES IN DWELLING UNITS SHALL NOT BE LOCATED IN BATHROOM
BRANCH CIRCUITS THAT SUPPLY DWELLING UNIT RECEPTACLES IN FAMILY ROOMS, KITCHENS, LAUNDRY ROOMS, DINING ROOMS, LIVING ROOMS, PARLORS,
LIBRARIES, DENS, BEDROOMS, SUNROOMS, RECREATION ROOMS, CLOSETS, HALLWAYS, OR SIMILAR ROOMS OR AREAS SHALL BE PROTECTED BY AN ARC-FAULT TERE BRANCH-CIRCUIT WIRING IS MODIFIED, REPLACED, OR EXTENDED IN AREAS SPECIFIED IN CEC 210.12(A), THE BRANCH CIRCUIT SHALL BE PROTECTED BY THER A LISTED COMBINATION-TYPE AFCI LOCATED AT THE ORIGIN OF THE BRANCH CIRCUIT OR A LISTED OUTLET BRANCH-CIRCUIT TYPE AFCI LOCATED AT EFIRST RECEPTACLE OF THE EXISTING BRANCH CIRCUIT ALL PANEL CIRCUITS TO BE LABELED
PROVIDE MULTI WIRE CIRCUIT BREAKERS @ ANY MULTI WIRE BRANCH CIRCUITS
UNO PER ELECTRICAL PLAN, PROVIDE WORKING SPACE AT FRONT OF ELECTRICAL EQUIPMENT PER THE FOLLOWING:
WIDTH TO BE ≥ THE GREATER OF 30" & THE EQUIPMENT WIDTH
DEPTH TO BE ≥ 36" WHERE THERE ARE NO GROUNDED SURFACES @ THE 'BACK SIDE' OF THE SPACE
DEPTH TO BE ≥ 42" WHERE THERE ARE GROUNDED SURFACES
DEPTH TO BE ≥ 48" WHERE THERE ARE EXPOSED LIVE PARTS MIN. (2), 20A, SMALL APPLIANCE BRANCH CIRCUITS REQ. FOR DWELLINGS. MAY INCLUDE APPLIANCE OUTLETS IN PANTRY, DINING ROOM, & OTHER SIMILAR NO POINT ALONG COUNTERTOP SHALL BE MORE THAN 24" FROM OUTLET. OUTLETS MUST BE NO MORE THAN 18" ABOVE COUNTERTOP. SPACES SEPARATED BY SINKS, RANGE TOPS, OR REFRIGERATORS SHALL BE CONSIDERED SEPARATE SPACE. OUTLETS NOT REQ. IN WALL SPACES LESS THAN 12" SELOW COUNTERTOP OUTLETS

SLAND & PENINSULAR ISLAND REQ. AT LEAST ONE OUTLET IF AT LEAST 12"X24". OUTLET MAY BE INSTALLED NO MORE THAN 12" BELOW COUNTERTOP IF NO MEANS TO INSTALL OUTLET ABOVE WITHIN 18"

MEANS TO INSTALL OUTLET ABOVE WITHIN 18" ALL LUMINAIRES INSTALLED MUST QUALIFY AS HIGH EFFICACY
DO NOT SCALE APPLIANCE LOCATIONS FROM DRAWING. CONFIRM ALL LOCATIONS WITH CLIENT AT TIME OF ROUGH-IN
MANUFACTURER'S LITERATURE SHOWING PROPOSED LED AND/OR LOW VOLTAGE LIGHT FIXTURES ARE HIGH EFFICACY AND CALIFORNIA CERTIFIED IS TO BE ON
SITE AT THE TIME OF FIELD INSPECTION

3.8 BATHROOMS
MIN. 20A BRANCH CIRCUIT TO RECEPTACLES WITH NO OTHER OUTLETS. IF 20A BRANCH SUPPLIES SINGLE BATHROOM, LIGHTING IN SAME BATHROOM ALLOWED. ADDITIONAL EQUIPMENT ALLOWED UNDER SPECIAL CIRCUMSTANCES
AT LEAST ONE GFI OUTLET WITHIN 36" OF OUTSIDE EDGE OF SINK
ALL LIGHTING TO BE HIGH EFFICACY
BATHROOM TO CONTAIN VENTILATION FAN CAPABLE OF THE GREATER OF 5 ROOM AIR CHANGES PER HOUR OR 50 CFM. UNO PER PLAN, USE NUTONE XN80 OR XN110 (OR EQUIVALENT) AS DRIVEN BY CFM REQUIREMENTS
UNO PER PLAN, FAN TO BE CONTROLLED BY LEVITON IPHS5 (HUMIDITY SENSOR AND FAN CONTROL) OR EQUIVALENT
AT LEAST ONE LUMINAIRE TO BE CONTROLLED BY TITLE 24 APPROVED VACANY SENSOR WITH MANUAL OFF. DIMMERS OR VACANCY CONTROLS MUST CONTROL ALL LUMINARIES USING JA8-CERTIFID LIGHT SOURCES. VACANY SENSOR MUST TURN LUMINAIRES OFF AUTOMATICALLY WITHIN 20 MINUTES, IF NO ACTIVITY FROM MOTION DETECTOR MIN. 20A BRANCH CIRCUIT TO RECEPTACLES WITH NO OTHER OUTLETS
ALL LIGHTING TO BE HIGH EFFICACY LED AND ACTIVATED BY TITLE 24 APPROVED SWITCH. IE WILL AUTOMATICALLY TURN OFF WITHIN 30 MINUTES IF NO HALLWAYS AT LEAST ONE OUTLET IF HALLWAY 10' OR LONGER AT LEAST ONE LIGHT WITH WALL SWITCH AT LEAST ONE LIGHT WITH WALL SWITCH, WALL SWITCH AT EA. FLOOR IF MORE THAN 5 STEPS AT LEAST ONE GFI OUTLET AND LIGHT WITH WALL SWITCH
ALL LIGHTING TO BE HIGH EFFICACY AND ACTIVATED WITH OCCUPANCY SENSOR SWITCH THAT WILL AUTOMATICALLY TURN OFF WITHIN 30 MINUTES IF NO
ACTIVITY FROM MOTION DETECTOR
SEE "FIRE SEPARATION WALLS" FOR RECEPTACLES INSTALLED IN GARAGE/HOUSE DIVIDING WALL
EXTERIOR LIGHT FIXTURE TO BE PROVIDED AT EXTERIOR WALK-THRU DOOR UTILITY ROOMS
ALL LIGHTING TO BE FLUORESCENT AND ACTIVATED BY TITLE 24 APPROVED SWITCH. IE WILL AUTOMATICALLY TURN OFF WITHIN 30 MINUTES IF NO ACTIVITY FROM MOTION DETECTOR "MIN. SPACING BETWEEN STEEL RECEPTACLE BOXES THAT ARE "BACK-TO-BACK." AREA FOR SUCH OPENINGS NOT TO EXCEED 100 SQUARE INCHES FOR ANY SMOKE/CO DETECTORS (DUAL UNITS OKAY)
SMOKE DETECTORS MUST BE WITHIN 24" OF HIGHEST POINT IN ROOM. DETECTORS REQ. IN EACH BEDROOM, HALL OR AREA IMMEDIATELY OUTSIDE BEDROOM
(S), TOP OF STAIRS, AND A MINIMUM OF 1 DETECTOR AT EACH FLOOR. DETECTORS TO BE WIRED TOGETHER WITH BATTERY BACKUP. OKAY TO USE BATTERY UNITS FOR REMODELS CARBON MONOXIDE DETECTORS DETECTORS REQ. IMMEDIATELY OUTSIDE BEDROOM(S) & A MINIMUM OF 1 DETECTOR AT EACH FLOOR. DETECTORS TO BE WIRED TOGETHER WITH BATTERY BACKUP. OKAY TO USE BATTERY UNITS FOR REMODELS ILL LIGHTING TO BE HIGH EFFICACY. ALL LIGHTING TO BE PIN BASED. LUMINARIES WITH INTEGRAL SOURCES AND CHANGEABLE LAMPS MUST BE CEC CERTIFIED AS MEETING THE REQUIRMENTS OF JA8. LUMINARIES NOT AUTOMATICALLY CLASSIFIED AS HIGH EFFICACY ARE TO HAVE A LIGHT SOURCE OR LAMP THAT MEETS COUNCINEMINS.
CHED LIGHT OR SWITCHED RECEPTACLE REQUIRED IN EVERY HABITABLE ROOM. SWITCHED RECEPTACLE NOT ALLOWED IN KITCHEN OR BATHROOM
THE SOURCE OF VACANCY SENSOR.
AS ONE LUMINAIRE EACH BATHROOM, GARAGE, LAUNDRY ROOM & UTILITY ROOM SHALL BE CONTROLLED BY A MANUAL ON/AUTOMATIC-OFF VACANCY. RECESSED LIGHT FIXTURES TO EMPLOY GASKET OR CAULKING TO SEPARATE CONDITIONED FROM NON-CONDITIONED SPACE & SHALL BE APPROVED FOR ERO CLEARANCE INSULATION COVER
GHTING FIXTURES WITHIN 3-FT HORIZONTALLY OF SHOWER OR BATHTUB & 8-FT VERTICALLY OF SHOWER THRESHOLD OR BATHTUB RIM SHALL BE RATED FOR MANUAL ON/AUTOMATIC-OFF VACANCY SENSORING CONTROLS REQUIRED IN OFFICES < 250 SQ FT, MULTI USE ROOMS < 1000 SQ FT, CLASSROOMS & MANUAL ON/AUTOMATIC-OFF VACANCY SENSORING CONTROLS REQUIRED IN OFFICES 250 5Q FT, MIGETI SELECTION A 105 5Q FT, SENSORING CONFRENCE ROOMS OF ALL SIZES

RECESSED DOWNLIGHTING IS TO CONTAIN LIGHT SOURCES THAT ARE JA8-CERTIFIED AND SHALL NOT CONTAIN SCREW BASED LAMPS AND SHALL NOT CONTAIN LIGHT SOURCES THAT ARE LABELED "NOT FOR USE IN ENCLOSED FIXTURES" OR "NOT FOR USE IN RECESSED FIXTURES"

THE NUMBER OF ELECTRICAL BOXES LOCATED MORE THAN 5-FT ABOVE FINISHED FLOOR THAT DO NOT CONTAIN A LUMINAIRE OR OTHER DEVICE SHALL NOT EXCEED THE NUMBER OF BEDROOMS

OUTDOOR LIGHTING PERMANENTLY MOUNTED TO A SINGLE FAMILY DWELLING OR OTHER BUILDING IN THE SAME LOT SHALL BE HIGH EFFICACY AND MUST BE CONTROLLED BY A MOTION SENSOR W/ INTEGRAL PHOTOCONTROL CERTIFIED TO COMPLY W/ CEC CLOSET LIGHTING
MIN. 12" CLEARANCE BETWEEN FULLY ENCLOSED FIXTURE & NEAREST POINT OF STORAGE
MIN. 6" CLEARANCE BETWEEN FLUORESCENT FIXTURE & NEAREST POINT OF STORAGE INTERIOR RECEPTACLES
NO POINT ALONG THE FLOOR LINE IN WALL SPACE SHALL BE MORE THAN 6 FT FROM OUTLET WHEN MEASURED HORIZONTALLY. OUTLET NOT REQ. FOR WALL SPACE LESS THAN 24"

SPACE LESS THAN 24"

SPACE LESS THAN 24"

REQUIRED FOR SILAR NLESS NOTED OTHERWISE, BOTTOM OF RECEPTACLE BOXES TO BE 15" ABOVE THE SUB-FLOOR OR SLAB
WELLING UNIT BRANCH CIRCUITS THAT SUPPLY RECEPTACLES TO BEDROOMS, FAMILY ROOMS, KITCHENS, LAUNDRY ROOMS, LIVING ROOMS, DENS,
ECREATION ROOMS, DINING ROOMS, CLOSETS, HALLWAYS, LIBRARIES OR SIMILAR ROOMS, SHALL BE PROTECTED BY A COMBINATION TYPE, ARC-FAULT CIRCUIT INTERRUPTER
DWELLING UNIT RECEPTACLES, IN KITCHENS, BEDROOMS, FAMILY ROOMS, LIVING ROOMS, DENS, RECREATION ROOMS, DINING ROOMS, CLOSETS, HALLWAYS,
LIBRARIES OR SIMILAR ROOMS TO BE LISTED TAMPER RESISANT TYPE
ALL NON-LOCKING TYPE 125-VOLT, 15 AND 20 AMPERE RECEPTACLES IN A DWELLING UNIT SHALL BE LISTED TAMPER-RESISTANT RECEPTACLES. (EXCEPTIONS:
1) RECEPTACLES MORE THAN 5'-6" ABOVE THE FLOOR, (2) RECEPTACLES PART OF A LUMINAIRE OR APPLIANCE, (3) A SINGLE RECEPTACLE OR A DUPLEX
RECEPTACLE FOR TWO APPLIANCES THAT ARE NOT EASILY MOVED AND LOCATED WITHIN DEDICATED SPACE AND ARE CHORD-AND-PLUG CONNECTED AS PER
CEC 400.7, AND (4) NON-GROUNDING RECEPTACLES USED FOR REPLACEMENTS AS PERMITTED IN CEC 406.4 (D) (2) (A) **EXTERIOR LIGHTS** EXTERIOR LIGHT REQ. AT EXTERIOR WALK-THROUGH DOORS

SWITCHED LIGHT REQ. AT EXTERIOR WALK-THROUGH DOORS

SXTERIOR LIGHTS ATTACHED TO STRUCTURE SHALL INCORPORATE PHOTO-SENSOR OVERRIDE SO THAT LIGHTS CANNOT OPERATE DURING DAYLIGHT HOURS

EXTERIOR LIGHTS ATTACHED TO STRUCTURE SHALL TURN OFF AUTOMATICALLY WITHIN 30 MINUTES IF NOT RE-ACTIVATED BY MOTION DETECTOR

EXTURES TO BE SHIELDED SO THAT THE LIGHT SOURCE [LAMP(S)] CANNOT BE VIEWED FROM ADJACENT PROPERTIES

PERMANENTLY MOUNTED OUTDOOR LIGHTING FIXTURES SHALL BE HIGH EFFICACY AND CONTROLLED AS NOTED BELOW:

PHOTOCELL AND MOTION SENSOR. CONTROLS THAT OVERRIDE TO "ON" SHALL NOT BE ALLOWED UNLESS THE OVERRIDE AUTOMATICALLY REACTIVATES THE OTION SENSOR WITHIN 6 HOURS
HOTOCELL AND AUTOMATIC TIME SWITCH CONTROL OR ASTRONOMICAL TIME CLOCK. CONTROLS THAT OVERRIDE TO "ON" SHALL NOT BE ALLOWED UNLESS
HE OVERRIDE AUTOMATICALLY RETURNS TO NORMAL OPERATION WITHIN 6 HOURS WATERPROOF GFI (WPGFI) RECEPTACLES REQ. FRONT AND REAR. RECEPTACLES TO BE NO MORE THAN 6-1/2' ABOVE GRADE PROVIDE AT LEAST ONE RECEPTICAL ALONG THE PERIMETER OF BALCONY, DECK, OR PORCH. ALL EXTERIOR RECEPTACLES SHALL BE (GFCI) PROTECTED FAU ATTIC REQUIREMENTS MINIMUM 30"X30" ATTIC ACCESS
A 120-VOLT SERVICE RECEPTACLE SHALL BE LOCATED WITHIN 25 FT OF, AND ON THE SAME LEVEL AS THE EQUIPMENT FOR MAINTENANCE
PERMANENT SWITCH CONTROLLED LIGHTING SHALL BE INSTALLED FOR MAINTENANCE. SUCH LIGHTING SHALL PROVIDE SUFFICIENT ILLUMINATION TO SAFELY
APPROACH THE EQUIPMENT AND PERFORM THE TASKS FOR WHICH ACCESS IS PROVIDED. CONTROL OF THE LIGHTING SHALL BE PROVIDED AT THE ACCESS ENTRANCE
AN UNOBSTRUCTED PASSAGEWAY WHICH IS NO MORE THAN 20 FT IN LENGTH, HAS CONTINUOUS SOLID FLOORING NOT LESS THAN 24" WIDE, AND INCLUDES A
SERVICE SPACE AT LEAST 30"X30" AT THE FRONT OR SERVICE SIDE OF THE EQUIPMENT
CHECK INSTALLATION INSTRUCTIONS FOR MINIMUM COMBUSTIBLE AIR REQUIREMENTS. ADDITIONAL ATTIC VENTILATION MAY BE NECESSARY
MAINTAIN MINIMUM 3" CLEARANCE FROM TOP, BACK & SIDES (TOTAL OF BOTH SIDES SHALL BE AT LEAST 12")
THERMOSTAT TO BE INSTALLED 40" ABOVE SUB-FLOOR OR SLAB AC CONDENSING UNIT
UNLESS NOTED OTHERWISE, PROVIDE 240V/60A CIRCUIT AT SPECIFIED LOCATION FOR CONDENSING UNIT
PROVIDE MIN 4" CONCRETE PAD WITH 3" MINIMUM CLEARANCE TO GRADE AT CONDENSING UNIT. BOLT UNIT TO SLAB WITH TITEN HD, TAPCON OR EQUIVALENT.
REFER TO MFG INSTALLATION INSTRUCTIONS FOR SPECIFIC REQUIREMENTS
IF INSTALLED IN A LOCATION SUBJECT TO POSSIBLE MECHANICAL DAMAGE, APPLIANCE SHALL BE PROTECTED WITH A BARRIER (CURB, BOLLARD, ETC)
SOUND POWER LEVEL AT PROPERTY LINE ≤ 60 DB, A-WEIGHTED, CNEL (COMMUNITY NOISE EQUIVALENT LEVEL)
PROVIDE WEATHER-PROOF DISCONNECT SWITCH AT UNIT UFER AT SERVICE DISCONNECT - CONNECT #4 CU GROUND ELECTRODE CONDUCTOR TO #4 FOOTING REBAR WITH A MINIMUM LENGTH OF 20-FT OR EMBED 20-LF OF #4 CU CONDUCTOR IN FOOTING. UFER TO HAVE A MINIMUM OF 2" CONCRETE ENCASEMENT. BOND ALL METAL PIPING (COLD WATER, HOT WATER, & GAS). ALL CONDUCTORS TO BE COPPER WITH TYPE THHN INSULATION MINIMUM
COMMERCIAL PROJECTS - ALL CONDUCTORS TO BE RUN IN CONDUIT
PROVIDE CODE-SIZED GROUND CONDUCTOR IN ALL CONDUITS
UNO PER PLAN, MAX CONDUIT CAPACITY FOR #12 AWG WIRE SHALL BE AS FOLLOWS: Ø 1/2" - (3) / Ø 3/4" - (5) / Ø 1" - (8) L'ELECTRICAL EQUIPMENT, LIGHTING FIXTURES, & APPLIANCES TO BE LISTED BY CODE-RECOGNIZED TESTING AGENCY

NOT SCALE APPLIANCE, EQUIPMENT, & CONDUIT LOCATIONS FROM DRAWING. ADJUST AS NEEDED TO FIELD CONDITIONS & CONFIRM ALL LOCATIONS WITH CLIENT AT TIME OF ROUGH-IN
FOR EACH NEW DWELLING AND TOWNHOUSE, PROVIDE A MINIMUM I-INCH DIAMETER LISTED RACEWAY THAT CAN ACCOMMODATE A DEDICATED 208/240 VOLT
BRANCH CIRCUIT. THE PANEL OR SUBPANEL SHALL HAVE SUFFICIENT CAPACITY TO SUPPORT AT LEAST LEVEL 2 EVSE. A LABEL STATING "EV CAPABLE" SHALL
BE POSTED IN A CONSPICUOUS PLACE AT THE SERVICE PANEL OR SUBPANEL AND NEXT TO THE RACEWAY TERMINATION POINT. [4,106.4.1 CGBSC]
EV SPACES WITHIN THE COMMON PARKING AREA SERVING R-OCCUPANCIES, SHALL HAVE LABELS POSTED STATING "EV CAPABLE" AT BOTH THE EV CHARGING
SPACE AND AT A CONSPICUOUS PLACE AT THE SERVICE PANEL OR SUBPANEL. THE ELECTRICAL SYSTEM SHALL HAVE SUFFICIENT CAPACITY TO
SIMULTANGEOUSLY CHARGE ALL DESIGNATED EV SPACES AT FULL RATED AMPERAGE BASED ON LEVEL 2 EVSE. A SEPARATE ELECTRICAL PERMIT IS REQUIRED. PROVIDE DISCONNECT SWITCHES AT REMOTE MOTORS

UNLESS OTHERWISE NOTED, BOTTOM OF SWITCH BOXES TO BE 38" ABOVE SUB-FLOOR OR SLAB DOOR BELL SWITCH TO BE NO MORE THAN 48" ABOVE LANDING VENT FANS MUST BE SWITCHED SEPARATELY FROM LIGHTING

M- MECHANICAL NOTES FLOOR AREA

THESE NOTES CONVEY MINIMUM CONSTRUCTION REQUIREMENTS AND ARE TO BE USED WHERE THE APPLICABLE CONDITIONS OCCUR. MORE STRINGENT REQUIREMENTS STIPULATED ELSEWHERE WITHIN THESE DOCUMENTS OR WITHIN RELEVANT MANUFACTURER'S INSTALLATION INSTRUCTIONS WILL SUPERSEDE
UNLESS OTHERWISE NOTED, ALL MATERIALS AND EQUIPMENT TO BE INSTALLED PER THE
APPLICABLE PROVISIONS OF THESE DOCUMENTS AND THE MANUFACTURER'S INSTALLATION BATHROOM FAN
BATHROOM TO CONTAIN VENTILATION FAN CAPABLE OF THE GREATER OF 5 ROOM AIR CHANGES
PER HOUR OR 50 CFM. REQUIRED CFM (DIVIDE ROOM VOLUME - CF BY 12). UNO PER PLAN, USE
NUTONE XN80 OR XN110 (OR EQUIVALENT) AS DRIVEN BY CFM REQUIREMENTS. SONE 3 MAX.
UNO PER PLAN, FAN TO BE CONTROLLED BY LEVITON IPHS5 (HUMIDITY SENSOR AND FAN CONTROL) OR EQUIVALENT
BACKDRAFT DAMPER REQUIRED
EXHAUST DUCT TO BE METAL, WITH SMOOTH INTERIOR, AND VENT TO EXTERIOR
DISTANCE BETWEEN DUCT TERMINATION AND OPERABLE BUILDING OPENINGS OR PROPERTY LINE AS SHUTOFF VALVE, REQUIRED IMMEDIATELY BEFORE APPLIANCE CONNECTOR, TO BE WITHIN 3-OF DRYER S-FT MÁXIMÚM LENGTH FOR APPLIANCE CONNECTO 6-F1 MAXIMUM LENGTH FOR APPLIANCE CONNECTOR
EXHAUST DUCT TO BE METAL WITH SMOOTH INTERIOR. SCREWS NOT TO OBSTRUCT FLOW
APPROVED FLEXIBLE DUCT, WITH MAXIMUM LENGTH OF 6-FT, OKAY FOR DOMESTIC DRYERS.
FLEXIBLE DUCT NOT TO BE CONCEALED WITHIN CONSTRUCTION
4" MINIMUM DUCT DIAMETER FOR GAS DRYER OR PER INSTALLATION INSTRUCTIONS FOR MAXIMUM DUCT RUN OF 14-FT WITH (2) 90 DEGREE BENDS, UNLESS OTHERWISE SPECIFIED IN INSTALLATION INSTRUCTIONS. REDUCE DUCT LENGTH 2-FT FOR EVERY ADDITIONAL 90 DEGREE) TERMINATE AT EXTERIOR OF BUILDING. SCREEN-LESS BACKDRAFT DAMPER REQUIRED STANCE BETWEEN DUCT TERMINATION AND OPERABLE BUILDING OPENINGS OR PROPERTY LINE INSTALLED IN A LOCATION SUBJECT TO POSSIBLE MECHANICAL DAMAGE, APPLIANCE SHALL BE PROTECTED WITH A BARRIER (CURB, BOLLARD, ETC)
PROVIDE MAKEUP AIR FOR THE CLOTHES DRYER. WHEN A CLOSET IS DESIGNED FOR THE
INSTALLATION OF A CLOTHES DRYER, A MINIMUM OPENING OF 100 SQ IN. SHALL BE PROVIDED IN GAS APPLIANCE VENTING (TYPE B)
CONFIRM THAT TYPE B VENT IS APPROPRIATE PER THE APPLIANCE INSTALLATION INSTRUCTIONS.
REFER TO THE TYPE B VENT SYSTEM INSTALLATION INSTRUCTIONS FOR PARTICULAR
REQUIREMENTS. AMERIVENT BY (WWW.AMERICANMETALPRODUCTS.COM) FOR EXAMPLE
THE FOLLOWING NOTES ARE MINIMUMS; MORE STRINGENT REQUIREMENTS SPECIFIED IN
APPLIANCE OR VENT SYSTEM INSTALLATION INSTRUCTIONS SUPERSEDE.
OBSERVE MINIMUM CLEARANCE OF 1" TO COMBUSTIBLE MATERIALS.
VENT SHALL HAVE A CONTINUOUS RISE OF NOT LESS THAN A 2% SLOPE.
VENTS TO EXTEND VERTICALLY, <=45 DEGREES FROM VERTICAL. EXCEPTION: ONE 60 DEGREE
OFFSET OKAY, BUT LENGTH OF HORIZONTAL RUN PLUS HORIZONTAL CONNECTORS SHALL NOT
EXCEED 75% OF THE VERTICAL HEIGHT OF THE VENT.
VENTING SYSTEM SHALL TERMINATE NOT LESS THAN 5-FT ABOVE THE HIGHEST VENT COLLAR IT
SERVES. ATERIALS.

WITH DIAMETER <= 12", SHALL EXTEND A MINIMUM OF 12" ABOVE THE ROOF FINISH

ATERIALS FOR ROOF PITCHES UP TO 6:12, ASSUMING THAT THERE ARE NO VERTICAL WALLS

OSER THAN 8-FT HORIZONTALLY. REFER TO BUILDING CODE FOR GREATER ROOF PITCHES OR VENTS SHALL EXTEND AT LEAST 2-FT ABOVE ANY PORTION OF THE BUILDING WITHIN 10-FT HORIZONTALLY FOR INSTALLATION WHERE A VERTICAL WALL OR SIMILAR OBSTRUCTION IS CLOSER THAN 8-FT HORIZONTALLY. GAS SHUTOFF VALVE, REQUIRED IMMEDIATELY BEFORE APPLIANCE CONNECTOR, TO BE WITHIN 3-FT OF RANGE. 6-FT MAXIMUM LENGTH FOR APPLIANCE CONNECTOR.
30" MINIMUM VERTICAL CLEARANCE TO COMBUSTIBLE MATERIALS.
24" MINIMUM VERTICAL CLEARANCE TO RANGE HOOD OR PER INSTALLATION INSTRUCTIONS.
MINIMUM HORIZONTAL CLEARANCES PER INSTALLATION INSTRUCTIONS. MIN 100 CFM PER 10,000 APPLIANCE BTUS
EXHAUST DUCT TO BE METAL WITH SMOOTH INTERIOR. SCREWS NOT TO OBSTRUCT FLOW.
SCHEDULE 40 PVC DUCT FOR DOWNDRAFT OKAY FOR INSTALLATION BENEATH CONCRETE SLAB.
JOINTS TO BE SOLVENT CEMENTED. BACKFILL TRENCH WITH SAND OR GRAVEL. NO MORE THAN 1"
OF 6" DIAMETER PVC FITTING MAY PROTRUDE ABOVE THE SLAB.
BACKDRAFT DAMPER REQUIRED AT DUCT TERMINATION.
DISTANCE BETWEEN DUCT TERMINATION AND OPERABLE BUILDING OPENINGS OR PROPERTY LINE FAU ATTIC REQUIREMENTS
ATTIC ACCESS TO BE A MINIMUM OF 30"X22" OR SIZE NECESSARY TO FACILITATE INSTALLATION OR
SUBSEQUENT REPLACEMENT OF THE EQUIPMENT; WHICHEVER IS GREATER.
A 120-VOLT SERVICE RECEPTACLE SHALL BE LOCATED WITHIN 25 FT OF, AND ON THE SAME LEVEL
AS THE EQUIPMENT FOR MAINTENANCE.
PERMANENT SWITCH CONTROLLED LIGHTING SHALL BE INSTALLED FOR MAINTENANCE. SUCH
LIGHTING SHALL PROVIDE SUFFICIENT ILLUMINATION TO SAFELY APPROACH THE EQUIPMENT AND
PERFORM THE TASKS FOR WHICH ACCESS IS PROVIDED. CONTROL OF THE LIGHTING SHALL BE
PROVIDED AT THE ACCESS ENTRANCE.
AN UNOBSTRUCTED PASSAGEWAY WHICH IS NO MORE THAN 20 FT IN LENGTH, HAS CONTINUOUS
SOLID FLOORING NOT LESS THAN 24" WIDE, AND INCLUDES A SERVICE SPACE AT LEAST 30"X30" AT
THE FRONT OR SERVICE SIDE OF THE EQUIPMENT.
UNLESS INDICATED OTHERWISE IN INSTALLATION MANUAL, INCREASE VENTILATING AREA FOR
ATTIC FAU AT 2 SQ IN/1,000 BTU, W/MIN. INCREASE OF 200 SQ IN. OR ADD COMBUSTION AIR INTAKE
PER FAU MFG INSTALLATION INSTRUCTIONS.
UNLESS NOTED OTHERWISE IN INSTALLATION INSTRUCTIONS, MAINTAIN MINIMUM 3" CLEARANCE
FROM TOP, BACK & SIDES (TOTAL OF BOTH SIDES SHALL BE AT LEAST 12").
IF INSTALLED IN A LOCATION SUBJECT TO POSSIBLE MECHANICAL DAMAGE, APPLIANCE SHALL BE
PROTECTED WITH A BARRIER (CURB, BOLLARD, ETC) AC CONDENSING UNIT UNLESS NOTED OTHERWISE, PROVIDE 240V/60A CIRCUIT AT SPECIFIED LOCATION FOR CONDENSING UNIT PROVIDE MIN 4" CONCRETE PAD WITH 3" MINIMUM CLEARANCE TO GRADE AT CONDENSING UNIT.

BOLT UNIT TO SLAB WITH TITEN HD, TAPCON OR EQUIVALENT. REFER TO MFG INSTALLATION
INSTRUCTIONS FOR SPECIFIC REQUIREMENTS

IF INSTALLED IN A LOCATION SUBJECT TO POSSIBLE MECHANICAL DAMAGE, APPLIANCE SHALL BE
PROTECTED WITH A BARRIER (CURB, BOLLARD, ETC)
SOUND POWER LEVEL AT PROPERTY LINE ≤ 53 DB, A-WEIGHTED, CNEL (COMMUNITY NOISE

15 PROVIDE WEATHER-PROOF DISCONNECT SWITCH AT UNIT FRESH AIR INTAKE
BROAN HEAT RECOVERY VENTILATION UNIT HRV SERIES OR EQUIVALENT
UNIT TO OPERATE CONTINUOUSLY & RUN IN PARALLEL WITH FAU (INSTALLATION METHODOLOGY
MUST NOT REQUIRE FAU FAN TO RUN. SEE MFG INSTALLATION INSTRUCTIONS)
UTILIZING PROGRAMMABLE THERMOSTATIC CONTROL (HONEYWELL VISIONPRO IAQ OR
EQUIVALENT) CONFIGURE VENTILATION FOR CONTINUOUS CONTROL
THE FOLLOWING NOTICE TO BE POSTED IN A VISIBLE LOCATION & SUGGESTED TO BE LOCATED
INSIDE THE FAU EQUIPMENT CLOSET DOOR AND/OR ON THE INSIDE OF THE COAT CLOSET DOOR:
'TO MAINTAIN MINIMUM LEVELS OF OUTSIDE AIR VENTILATION REQUIRED FOR GOOD HEALTH, THIS
HOUSE INCORPORATES A FRESH AIR VENTILATION SYSTEM THAT SHOULD BE ON AT ALL TIMES
WHEN THE BUILDING IS OCCUPIED, UNLESS THERE IS SEVERE OUTDOOR AIR CONTAMINATION.
THE CONTROL IS AVAILABLE AT THE THERMOSTAT PROGAMMABLE CONTROLLER'.
SIZE & ADJUST CFM PER BELOW SIZE & ADJUST CFM PER BELOW REGISTERS, GRILLES, & DIFFUSERS
SUPPLY DISCHARGE AIR NOT TO BE DIRECTED TOWARD OCCUPIED ZONE
AS MUCH AS IS PRACTICAL, FLOOR OR LOW SIDEWALL SUPPLIES TO BE LOCATED AT EXTERIOR
WALLS AND DISCHARGE AIR STRAIGHT UP THE WALLS. VELOCITY OF DISCHARGE AIR SHOULD BE
SUFFICIENT TO REACH CEILING.
AS MUCH AS IS PRACTICAL, HIGH INTERIOR SIDEWALL SUPPLIES TO DISCHARGE AIR PARALLEL TO
THE CEILING AND TOWARDS EXTERIOR WALLS.
AS MUCH AS IS PRACTICAL, CEILING SUPPLIES SHOULD DISCHARGE AIR PARALLEL TO THE CEILING
AND TOWARDS EXTERIOR WALLS. SUPPLIES SHOULD BE CLOSE ENOUGH FOR AIR TO REACH
EXTERIOR WALL EXTERIOR WALL. UNLESS NOTED OTHERWISE, HART & COOLEY 300 SERIES OR COMPARABLE PRODUCT TO BE TED OTHERWISE, HART & COOLEY F118 SERIES DUCT OR COMPARABLE TO BE USED GAS PIPING - UNDER SLAB
GAS PIPING FOR KITCHEN ISLAND RANGE-OVEN, SHALL BE INSTALLED WITHIN AN APPROVED
SLEEVE, INCLUDING THE REQUIRED VENT. THE PENETRATION SHALL BE SEALED WITH SEALANT. FABRICATE ALL DUCTS PER SMACNA 'LOW VELOCITY AND DUCT CONSTRUCTION' STANDARDS. USE
'S AND DRIVERS FOR JOINTS, 'PITTSBURG' SEAMS. SEAL JOINTS WITH APPROVED SEALER.
FABRICATE DUCTS WITH GALVANIZED SHEET METAL.
PROVIDE TURNING VANES IN ALL 90 DEGREE ELBOW SUPPLY AND RETURN AIR DUCTS
PLUMBING CONTRACTOR TO PROVIDE CONDENSATE DRAIN PIPE COPPER TYPE 'M' WITH 4" DEEP
TRAP TO APPROVED RECEPTOR
ALL FIRE DAMPERS SHALL BE STATE FIRE MARSHALL APPROVED WITH LISTING NUMBER
ALL HVAC EQUIPMENT ANDD DUCTS SHALL BE INSTALLED PER 'SMACNA' SEISMIC RESTRAINT
INSTAL I ATION METHODS

18.3

18.4

18.5 ALL HAVE EQUIPMENT ANDD DOCTS SHALL BE INSTALLED PER SMACNA SEISMIC RESTRAINT INSTALLATION METHODS
ALL LAY-IN T-BAR CEILING DIFFUSERS SHALL BE TITUS, MODEL PCS, WITH ROUND NECK AND PERFORATED, OR EQUAL
ALL SIDEWALL REGISTERS SHALL BE TITUS MODEL 300-RS OR EQUAL
ALL GYP BOARD MOUNTED EXHAUST GRILLES SHALL BE TITUS MODEL 300-R OR EQUAL
ALL RETURN AIR GRILLES TO MATCH DIFFUSERS
ALL COMBUSTIBLE MATERIALS SHALL HAVE A FLAME SPREAD < 25, SMOKE SPREAD < 50
ALL DUCTS EXPOSED TO OUTDOORS SHALL BE LINED WITH FIBERGLASS LINER, 2" THICK CSG
ULTRALINER (R8). ATTACH LINER WITH DISC AND SPINDLES AND ADHESIVE
ALL INSULATED DUCTWORK LOCATED INDOORS SHALL BE WRAPPED WITH 1" DUCT WRAP (R4).
ATTACH BLANKET WITH #10 SOFT ANNEALED WIRE AT 12" OC
USE OF FLEXIBLE DUCT IN PLACE OF SPIRAL DUCT IS PERMITTED AT CONNECTION TO DIFFUSER
OR GRILLE WITH MAX LENGTH OF 7'. ALUMINUM FLEX DUCT IS NOT ALLOWED
THERMOSTATS ARE TO BE LOCATED 36" TO 48" ABOVE FINISHED FLOOR
CONTRACTOR TO VERIFY EQUIPMENT VOLTAGE PRIOR TO ORDER
AN AIR BALANCE TEST WILL BE REQUIRED TO CONFIRM PROPER OUTSIDE AIR MIX PER BE
PROTECTED WITH A BARRIER (CURB, BOLLARD, ETC)

P-PLUMBING NOTES TRACE WIRE TO BE RUN WITH PIPE TRAP TO BE BETWEEN 6" AND 18" ABOVE THE FLOOR STANDPIPE RECEPTOR TO BE >= 18" AND <= 42" IN HEIGHT CLOTHES WASHERS MAY DRAIN TO LAUNDRY TUB PIPE AT FOUNDATION SEE CONC-PIPES & TRENCHES @ FNDN AVATORY FAUCET KITCHEN SINK SHOWERHEAD REVERSE OSMOSIS DRINKING SYSTEMS REJECTION WATER MUST DRAIN THROUGH AN AIR GAP TAILPIECE MAXIMUM LENGTH OF 24" 18.2

WINDWARD THESE NOTES CONVEY MINIMUM CONSTRUCTION REQUIREMENTS AND ARE TO BE USED WHERE THE APPLICABLE CONDITIONS OCCUR. MORE STRINGENT REQUIREMENTS STIPULATED ELSEWHERE WITHIN THESE DOCUMENTS OR WITHIN RELEVANT MANUFACTURER'S INSTALLATION INSTRUCTIONS WILL SUPERSEDE.

UNLESS OTHERWISE NOTED, ALL MATERIALS AND EQUIPMENT TO BE INSTALLED PER THE APPLICABLE PROVISIONS OF THESE DOCUMENTS AND THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.

DRAWINGS ARE DIAGRAMMATIC; ADJUST PIPE ROUTING & SIZE TO FIELD CONDITIONS AS NEEDED. design services, llo FIXTURES WITH FLOOD RIMS BELOW THE NEXT UPSTREAM MANHOLE COVER SHALL BE PROTECTED BY APPROVED BACKWATER VALVE. LICENSED PLUMBER PERFORMING WORK TO MAKE FINAL DETERMINATION.

NO OTHER FIXTURES SHALL DISCHARGE THROUGH BACKWATER VALVE.

BACKWATER VALVES SHALL BE ACCESSIBLE FOR SERVICE.

HOSE BIBS SHALL BE FITTED WITH A NON-REMOVABLE BACK-FLOW DEVICE 1825 STATE STREET STE 102 SANTA BARBARA, CA 93101 T: 805.845.6601 E: INFO@WINDWARDENG.COM PROVIDE CLEANOUT AT UPPER END OF HORIZONTAL DRAIN LINES AND AT INCREMENTS NOT TO EXCEED 100-FT. PROVIDE ADDITIONAL CLEANOUTS WHEN HORIZONTAL CHANGE IN DIRECTION EXCEEDS 135 DEGREES.
BUILDING SEWER CLEANOUT REQUIRED WITHIN 2-FT OF BUILDING DRAIN. USE OF TWO-WAY CLEANOUT AT THIS LOCATION ELIMINATES THE NEED FOR A CLEANOUT A THE UPPER TERMINAL OF THE BUILDING DRAIN. CLEANOUTS NOT REQUIRED ABOVE FIRST FLOOR.
UNDER FLOOR CLEANOUTS SHALL BE NO MORE THAN 20-FT FROM ACCESS. MARCHETTI ADU 221 LA PLATA LEANOUTS UP TO 2" DIAMETER REQUIRE A MINIMUM OF 12" CLEARANCE IN FRONT OF CLEANOUT. 18" MINIMUM REQUIRED. SANTA BARBARA, CA 93109 CLEANOUT NOT REQUIRED FOR PIPE LENGTHS LESS THAN 60" UNLESS SERVING SINK OR URINAL CLIENT AIR GAP OR INTEGRAL BACKFLOW DEVICE REQUIRED FOR DISHWASHER DRAIN LINES POLYETHYLENE OR POLYBUTYLENE APPROVED FOR UNDERGROUND EXTERIOR USE ONLY, AND TO BE INSTALLED BY WORKERS FAMILIAR WITH THE PARTICULAR REQUIREMENTS. PIPE TO BE A MINIMUM OF 18" BENEATH GRADE. 18 AWG DAVID MARCHETTI 221 LA PLATA TRACE WIRE TO BE RUN WITH PIPE
IRON OR STEEL PIPE, INSTALLED IN EXTERIOR LOCATIONS, TO BE PROTECTED BY FACTORY APPLIED WRAPPING
APPROVED FOR SUCH USE. PIPE TO BE A MINIMUM OF 12" BENEATH GRADE
GAS PIPE TO BE BLACK PIPE OR APPROVED FLEXIBLE GAS PIPE IF INSTALLED BY WORKERS FAMILIAR WITH THE
PARTICULAR SYSTEM REQUIREMENTS
FLEX-PIPE WITHIN 1" OF JOIST OR STUD EDGE SHALL BE PROTECTED WITH NAIL PLATE
UNDER FLOOR PIPING TO BE MINIMUM OF 6" ABOVE GROUND
GAS PIPE NOT TO BE BURIED UNDER OR IN SLAB WITHIN THE BUILDING. EXCEPTION: IF ALLOWED BY LOCAL JURISDICTION,
PIPE MAY BE INSTALLED IN A SLEEVE THAT VENTS TO THE OUTSIDE. REVIEW SPECIFIC INSTALLATION CODE
REQUIREMENTS SANTA BARBARA, CA 93109 SHEET INDEX G-001 GENERAL AND SITE PLAN GAS SHUTOFF VALVES
MAIN GAS SHUTOFF REQUIRED AT EXTERIOR OF BUILDING AND TO BE READILY ACCESSIBLE
DEDICATED GAS SHUTOFF VALVE REQUIRED WITHIN 4-FT OF FIREPLACE, BBQ AND OUTSIDE HEARTH
DEDICATED GAS SHUTOFF VALVE REQUIRED WITHIN 3-FT OF EACH APPLIANCE G-002 ENERGY ANALYSIS G-003 ENERGY ANALYSIS G-004 GREEN CODE G-005 GENERAL NOTES A-101 PLAN ELEV SECT A-601 SCHEDULES S-001 GENERAL SEE FRMNG-CUTTING & NOTCHING DETAIL REFER TO SPECIFIC MANUFACTURING REQUIREMENTS FOR DRILLING, NOTCHING, AND CUTTING OF I-JOISTS AND OTHER FOUNDATION/ 1ST STORY FRAMING PLAN S-501 CONCRETE DETAILS CAST IRON NO HUB: HORIZONTAL SUPPORT TO BE WITHIN 18" OF EVERY OTHER JOINT AND NOT TO EXCEED 4-FT O.C. BETWEEN SUPPORTS. VERTICAL SUPPORT AT BASE AND EACH FLOOR WITH A MAXIMUM VERTICAL SPACING BETWEEN S-502 CONCRETE DETAILS S-503 FRAMING DETAILS COPPER: HORIZONTAL SUPPORT FOR PIPE <= 1-1/2" DIAMETER NOT TO EXCEED 6-FT O.C. FOR PIPE DIAMETER >=2", SUPPORTS NOT TO EXCEED 10-FT O.C. VERTICAL SUPPORT AT EACH FLOOR AND SHALL NOT TO EXCEED 10-FT BETWEEN S-504 FRAMING DETAILS PEX: HORIZONTAL SUPPORTS AT 32" O.C., VERTICAL AT EACH FLOOR WITH MID-STORY GUIDES
ABS DWV: HORIZONTAL SUPPORTS NOT TO EXCEED 4-FT O.C. ALLOW FOR EXPANSION EVERY 30-FT. SUPPORT AT EACH
HORIZONTAL BRANCH CONNECTION. VERTICAL SUPPORT AT EACH FLOOR WITH MID-STORY GUIDES S-505 FRAMING DETAILS S-506 SW & SHEATHING DETAILS CALIFORNIA GREEN BUILDING STANDARDS REQUIRE THAT OVERALL POTABLE WATER CONSUMPTION BE REDUCED BY 20% PROVIDING FIXTURES THAT MEET THE FOLLOWING REQUIREMENTS: P-101 PLUMBING PLAN M-101 MECH PLAN ≥ 0.8 GPM @ 20 PSI; ≤ 1.2 GPM @ 60 PSI ≤ 1.8 GPM @ 60 PSI ≤ 1.8 GPM @ 80 PSI URINAL

≤ 0.5 GALS PER FLUSH
USE OF ANY FIXTURES EXCEEDING THE ABOVE FLOW RATES REQUIRES JUSTIFICATION USING THE CALCULATION METHOD
SPECIFIED IN CGBSC 4.303.1 ALONG WITH THE MAX RATINGS SPECIFIED BELOW IN 11.2 THRU 11.4 TOILETS SHALL NOT USE MORE THAN 1.6 GALLONS PER FLUSH CENTER OF FIXTURE SHALL BE \geq 15" TO ADJACENT WALL OR 30" CTC TO ADJACENT FIXTURE CENTER. PROVIDE MIN 30"W X 24"D AREA IN FRONT OF FIXTURE LAVATORY FAUCET & KITCHEN FAUCET FLOW RATES \leq 2.2 GPM SHOWERHEAD FLOW RATE \leq 2.5 GPM CONTROL VALVE FOR SHOWER OR TUB-SHOWER SHALL BE OF PRESSURE BALANCE OR THERMOSTATIC MIXING VALVE TYPE. FLOW RATES \leq 2.5 GPM NO TOILET OR BIDET SHALL BE SET CLOSER THAN 15" FROM ITS CENTER TO ANY SIDE WALL OR OBSTRUCTION NOR CLOSER THAN 30" ON CENTER TO SIMILAR FIXTURES. CLEAR SPACE IN FRONT OF TOILET OR BIDET SHALL BE AT LEAST 24". PROVIDE 12X12 ACCESS PANEL OR UTILITY SPACE AT BATHTUB OR FIXTURE WITH CONCEALED SLIP JOINTS SHOWERS
MINIMUM SHOWER AREA TO BE 1,024 SQUARE INCHES WITH A MINIMUM DIAMETER OF 30", MEASURED FROM FINISH SURFACES. MINIMUM SHOWER AREA TO BE MAINTAINED TO 70" ABOVE DRAIN. SHOWERHEADS, VALVES, GRAB BARS, & SOAP DISHES ALLOWED TO PROTRUDE INTO REQUIRED AREA.
FINISHED THRESHOLD HEIGHT TO BE 2" TO 9" ABOVE TOP OF DRAIN FLOOR SHALL SLOPE UNIFORMLY FROM THE SIDES TOWARDS THE DRAIN WITH SLOPE \geq 2% SHOWERHEAD NOT TO DISCHARGE DIRECTLY TOWARDS DOOR NET DOOR OPENING WIDTH TO BE \geq 22". DOOR, IF PRESENT, NOT TO ENCROACH ON THIS MINIMUM WIDTH LENGTH LIMITATIONS: 1-1/4" (30"), 1-1/2" (42"), 2" (60"), 3" (72"), 4" & > (120"), TOILET TRAP (72")

90 DEGREES OF CHANGE ALLOWED WITHOUT CLEANOUT. 135 DEGREES OKAY FOR DIAMETERS 3" AND LARGER PIPE.
DIAMETER REQUIREMENTS FOR FIXTURES: 1-1/2" (BATHTUB, SINK, RESIDENTIAL DISHWASHER, BIDET, AND LAUNDRY TUB),
2" (CLOTHES WASHER, FLOOR DRAIN, AND SHOWER), 3" (TOILET) SLOPE VENTS TOWARDS WASTE OR SOIL PIPE. VENT PIPES MUST BE AT LEAST 2 PIPE DIAMETERS FROM TRAP. VENT PIPES SHALL EXTEND THROUGH FLASHING AT LEAST 6" ABOVE THE ROOF AND SHALL NOT BE WITHIN 12" OF ANY VERTICAL SURFACE.
VENT PIPES TERMINATING < 10-FT HORIZONTALLY FROM OPERABLE DOOR OR WINDOW SHALL BE AT LEAST 3-FT ABOVE OR VENT PIPES TERMINATING < 10-FT HORIZONTALLY FROM DECK SHALL BE AT LEAST 7-FT ABOVE DECK. WATER HEATER
INSTALL 1-1/2" WIDE, 16 GA STRAP AT 1/3 FROM THE TOP & 1/3 FROM THE BOTTOM OF THE WATER HEATER. STRAPS NOT REQUIRED IF "FLASH" WATER USED AND APPROPRIATE MANUFACTURER'S MOUNTING HARDWARE IS USED.
INSTALL BALL VALVE AT OR NEAR COLD WATER SUPPLY INLET & HOT WATER OUTLET
INSTALL BALL VALVE AT OR NEAR COLD WATER SUPPLY INLET & HOT WATER OUTLET
INSTALL UNIONS WITHIN 12" OF WATER HEATER TO ALLOW FOR SERVICEABILITY
IF INSTALLED IN GARAGE, WATER HEATER PLATFORM TO BE MIN. 18" ABOVE SLAB
INSULATE FIRST 5 FEET OF PIPING. INSULATION NOT NEEDED IF "FLASH" WATER HEATER USED
FOR WATER HEATERS WITH 50 GALLON CAPACITY OR LESS, PROVIDE R-12 BLANKET IF ENERGY FACTOR <0.58
IF IN GARAGE, INSTALL PARKING CURB OR BOLLARD TO PROTECT WATER HEATER FROM POSSIBLE IMPACT
THE TAP DRAIN PIPE SHALL BE OF THE SAME DIAMETER AS THE RELIEF VALVE OUTLET AND SHALL EXTEND TO THE
OUTSIDE OF THE BUILDING WITH THE END OF THE PIPE NOT MORE THAN 6" ABOVE THE GROUND
WHERE THE WATER HEATER IS INSTALLED IN A LOCATION WHERE LEAKAGE WILL CAUSE DAMAGE, SUCH AS IN SUSPENDED
CELING SPACES, FURRED SPACES OR ATTICS, THE WATER HEATER SHALL BE INSTALLED IN A GALVANIZED STEEL PAN
HAVING A MINIMUM THICKNESS OF 0.0276 INCH. THE PAN SHALL BE NO LESS THAN 1-1/2 INCHES DEEP AND SHALL BE
LARGE ENOUGH TO RECEIVE ALL DRIPPING OR CONDENSATE FROM THE WATER HEATER. THE PAN SHALL BE DRAINED BY
AN INDIRECT WASTE PIPE HAVING A MINIMUM DIAMETER OF 34'-INCH OR THE OUTLET DIAMETER OF THE REQUIRED RELIEF
VALVE, WHICHEVER IS LARGER. THE PAN DRAIN SHALL EXTEND FULL SIZE AND TERMINATE OVER A SUITABLY LOCATED
INDIRECT WASTE PIPE HAVING A MINIMUM DIAMETER OF THE OUTLET DIAMETER OF THE REQUIRED RELIEF
VALVE, WHICHEVER IS LARGER. THE PAN DRAIN SHALL EXTEND TO THE EXTERIOR OF THE BUILDING AND TERMINATE NO LESS
THAN 6 INCHES OR MORE THAN 24 INCHES ABOVE THE ADJACENT GROUND

0 WATER HEATERS INSTALLED IN CONFINED SPACES (<50 CUBIC FEET PER 1,000 BTU/H INPUT) SHALL BE VENTED TO
UNCONFINED SPACES BY PROVIDING TWO OPENINGS INTO THE ENCLOSURE. EACH OPENING SHALL BE VENTED TO
UNCONFINED WATER SUPPLY
BALL TYPE SHUT-OFF VALVE TO BE INSTALLED BETWEEN SERVICE WATER METER AND WATER PRESSURE REDUCING WALVE.
WATER PRESSURE REDUCING VALVE WITH INTEGRAL BY-PASS CHECK VALVE AND STRAINER TO BE INSTALLED AT BUILDING WATER SUPPLY INLET. VALVE SHALL BE ACCESSIBLE FOR CLEANING AND ADJUSTMENT WITHOUT REMOVAL OF PIPE OR VALVE. BUILDING'S POTABLE WATER SUPPLY SYSTEM STATIC PRESSURE NOT TO EXCEED 80 PSI. COPPER TUBE USED IN WATER SUPPLY SYSTEM TO HAVE A MINIMUM WEIGHT OF TYPE L OR K. COPPER TUBING TO BE INSTALLED WITHOUT JOINTS WHERE POSSIBLE. JOINTS SHALL BE BRAZED AND FITTINGS ARE TO BE WROUGHT COPPER. PIPE TO BE A MINIMUM OF 12" BELOW GRADE.
APPROVED PEX PLUMBING SYSTEMS IS TO BE INSTALLED BY WORKERS FAMILIAR WITH THE REQUIREMENTS FOR THE PARTICULAR SYSTEM SELECTED.
PIPE THAT IS WITHIN 1" OF JOIST OR STUD EDGE SHALL BE PROTECTED WITH NAIL PLATE. 1/3/2020 03/03/2020 INSTALL PEX (ZURN) HOT & COLD WATER MANIFOLDS INSTALL HOT WATER MANIFOLD AS CLOSE AS POSSIBLE TO HOT WATER HEATER, BUT NO CLOSER THAN 18" RUN DEDICATED 1/2" LINES TO EA BATHTUB RUN DEDICATED 1/2" LINES TO WASHER RUN DEDICATED 3/8" LINE TO EA FIXTURE 03/03/2020 03/18/2020 SCALE AS NOTED 20.1 PIPE INSULATION
20.1 IF SPECIFIED PER PLUMBING PLAN, INSULATE ALL HOT WATER PIPE
20.2 INSULATION TO BE PROTECTED FROM DAMAGE, INCLUDING THAT DUE TO SUNLIGHT, MOISTURE, EQUIPMENT MAINTENANCE, & WIND
20.3 INSULATION CONDUCTIVITY RANGE OF 0.24-0.28 BTU-INCH PER HOUR PSF PER °F

4/9/2020 INITIAL

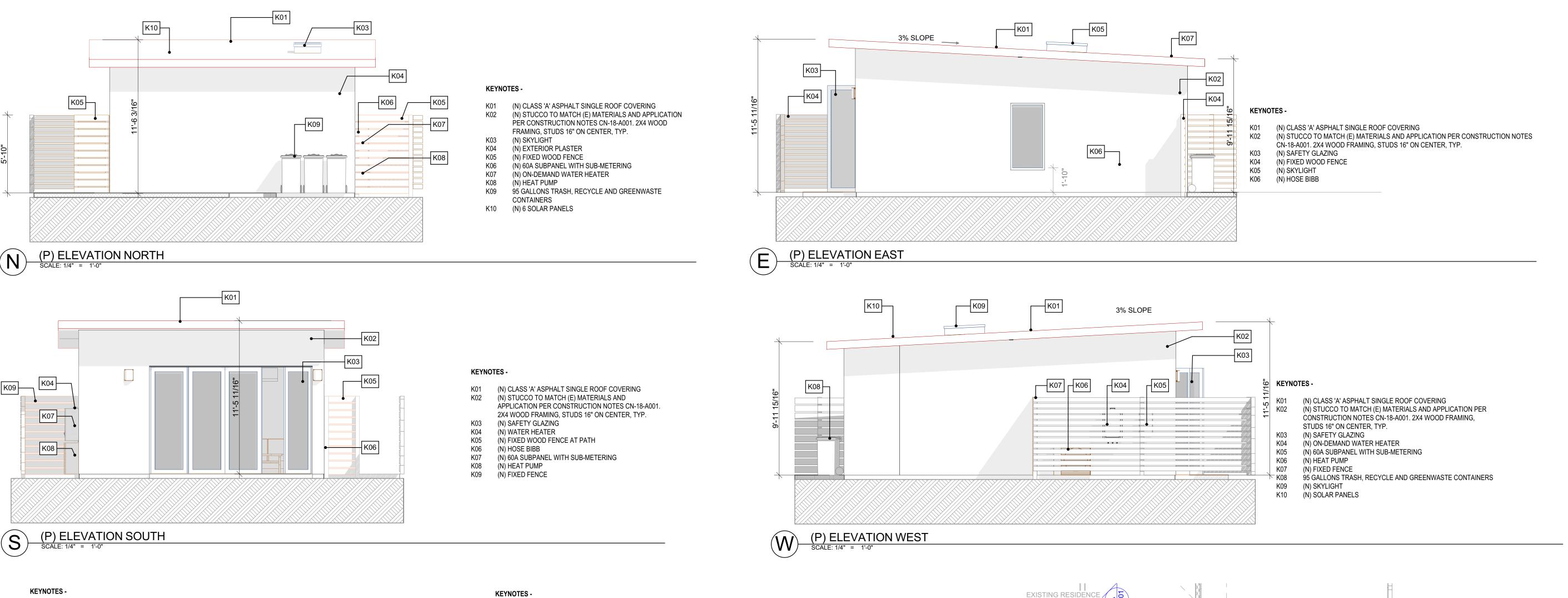
moving forward

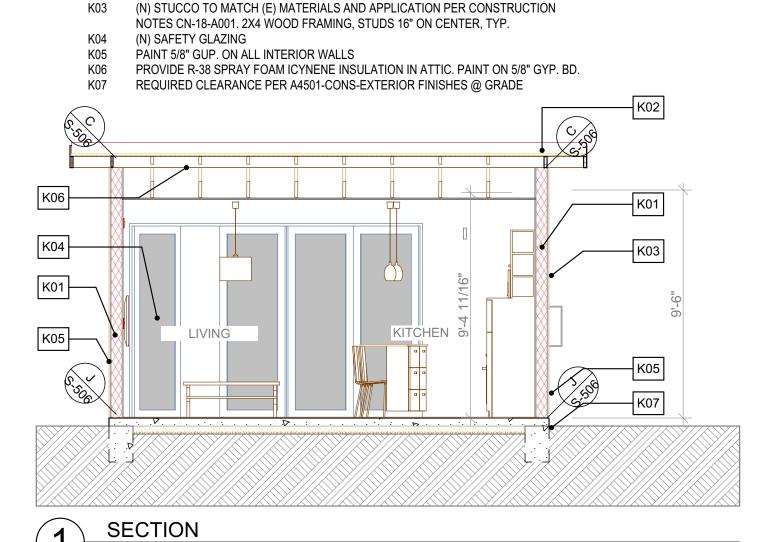
(E) FENCE SUBMITTA DART RESUBMITTAL RESUBMITTAL

CREATED BY: WDS

SHEET

GENERAL NOTES





PROVIDE R-19 INSULATION IN ALL (N) EXTERIOR HABITABLE WALLS

K02 (N) CLASS 'A' ASPHALT SINGLE ROOF COVERING

SCALE: 1/4" = 1'-0"

KOG
REQUIRED CLEARANCE PER A4501-CONS-EXTERIOR FINISHES @ GRADE
(N) STAINLESS STEEL APPLIANCES
(N) STAINLESS STEEL APPLIANCE

PROVIDE R-19 INSULATION IN ALL (N) EXTERIOR HABITABLE WALLS

K03 (N) STUCCO TO MATCH (E) MATERIALS AND APPLICATION PER CONSTRUCTION

NOTES CN-18-A001. 2X4 WOOD FRAMING, STUDS 16" ON CENTER, TYP.

(N) CLASS 'A' ASPHALT SINGLE ROOF COVERING

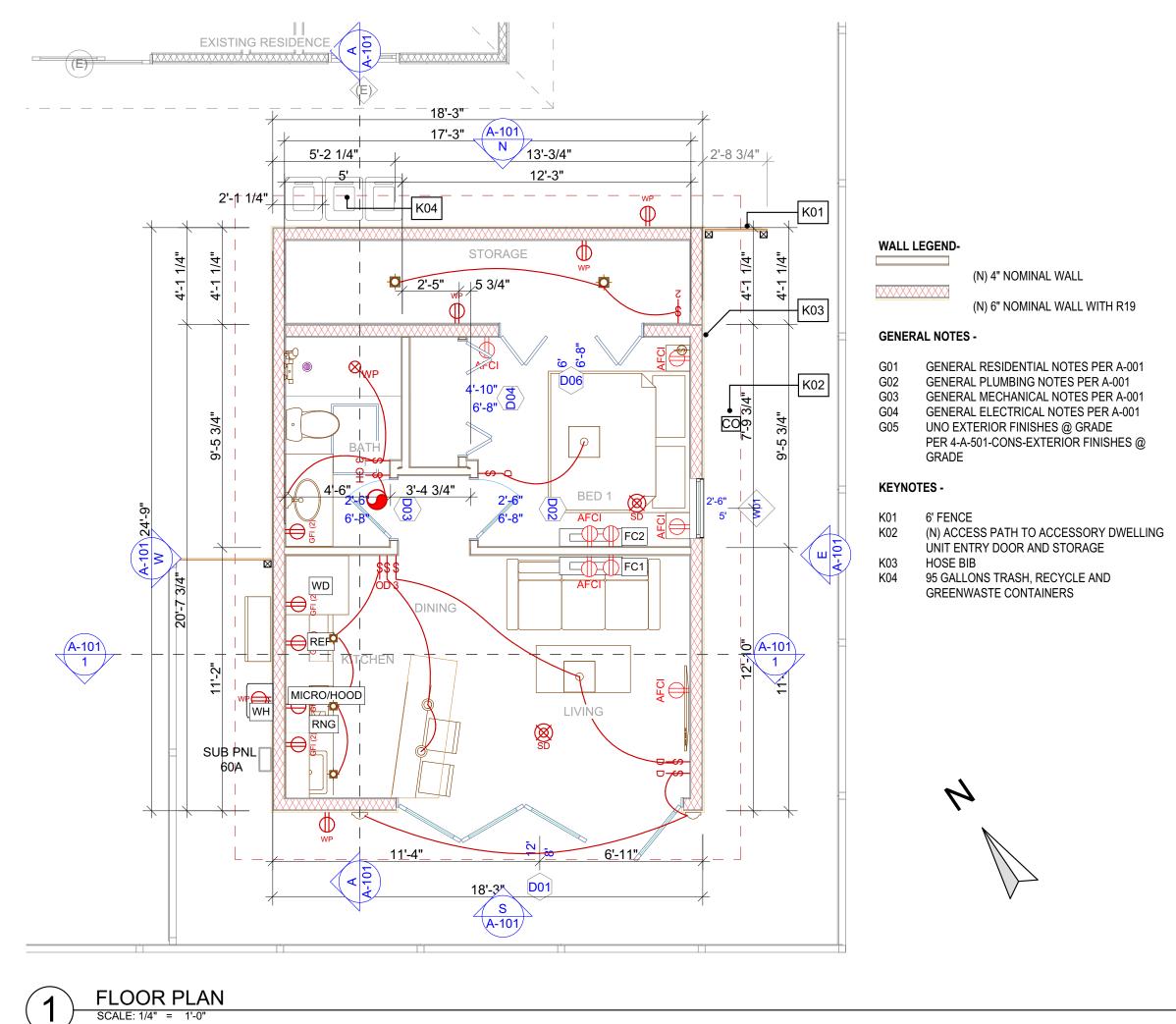
PAINT 5/8" GUP. ON ALL INTERIOR WALLS

K04 (N) TILE

SECTION

SCALE: 1/4" = 1'-0"

ELECTRICAL LEGEND								
DESCRIPTION	SYMBOL	QTY						
LIGHT SURFACE MOUNTED LED WP	\triangleright	3						
PENDANT 1 LED	\odot	1						
PENDANT 2 LED	\odot	1						
PENDANT 3 LED	©	2						
RECEPTACLE	Ф	2						
RECEPTACLE AFCI	AFCI	6						
RECESS CAN LED LIGHT	¢	5						
SINGLE SWITCH OUTLET	\$	1						
SWITCH 2-WAY	\$ 2	1						
SWITCH 3-WAY	\$ 3	2						
SWITCH DIMMER	\$-D	4						



WINDWARD design services.

moving forward

1825 STATE STREET STE 102

SANTA BARBARA, CA 93101 T: 805.845.6601 E: INFO@WINDWARDENG.COM

PROJECT

MARCHETTI ADU 221 LA PLATA SANTA BARBARA, CA 93109

CLIENT

DAVID MARCHETTI 221 LA PLATA SANTA BARBARA, CA 93109

SANTA BARBARA, CA 93109

SHEET INDEX

G-001 GENERAL AND SITE PLAN
G-002 ENERGY ANALYSIS
G-003 ENERGY ANALYSIS

G-004 GREEN CODE

G-005 GENERAL NOTES

A-101 PLAN ELEV SECT

A-101 PLAN ELEV SECT

A-601 SCHEDULES

S-001 GENERAL

S-101 FOUNDATION/ 1ST STORY
FRAMING PLAN

S-501 CONCRETE DETAILS

S-502 CONCRETE DETAILS

S-503 FRAMING DETAILS
S-504 FRAMING DETAILS

S-505 FRAMING DETAILS
S-506 SW & SHEATHING DETAIL

S-506 SW & SHEATHING DETAILS
P-101 PLUMBING PLAN

UT PLUMBING PLAN

M-101 MECH PLAN

DATE: 4/9/2020

DATES1/3/2020

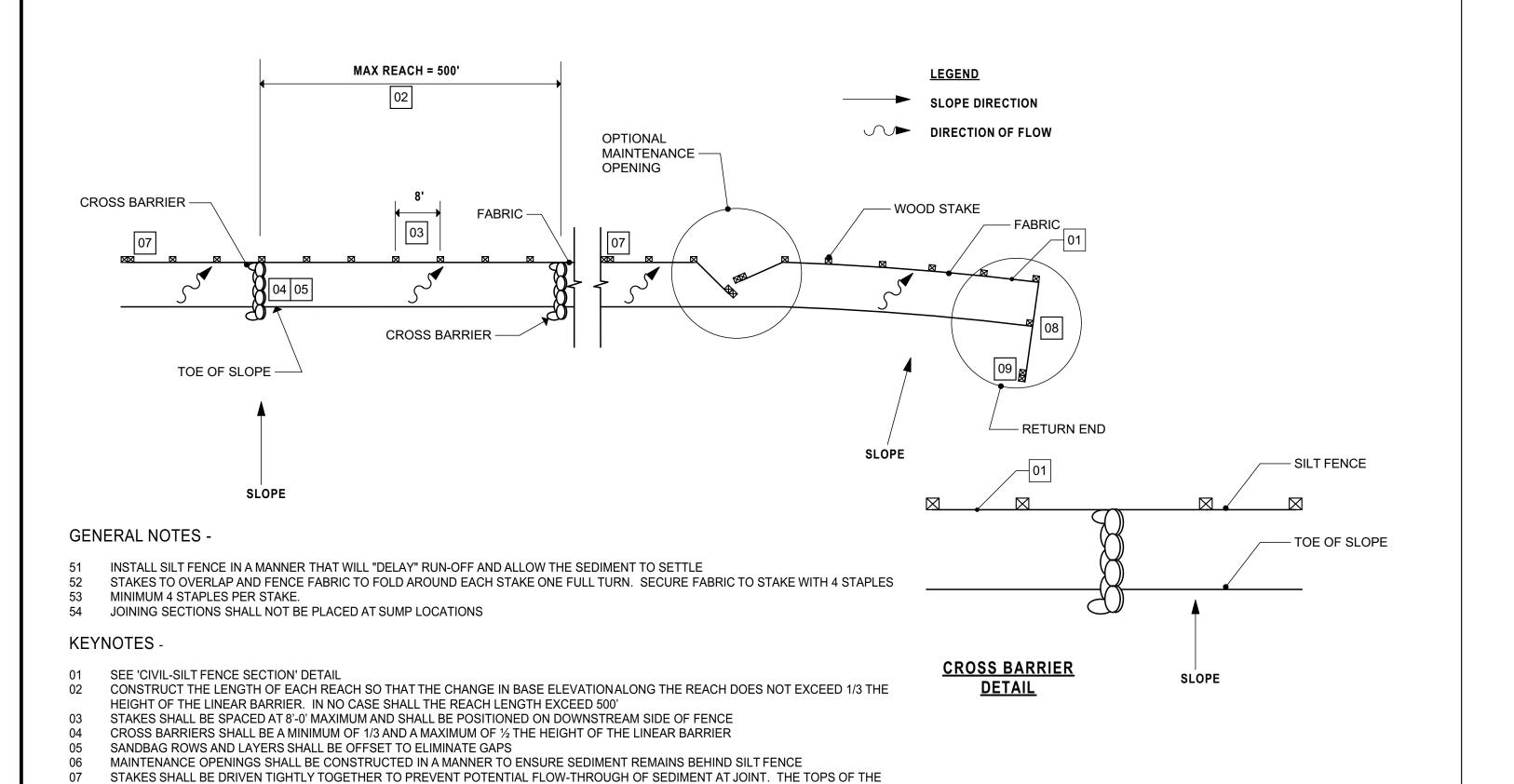
1/3/2020 INITIAL
03/03/2020 (E) FENCE SUBMITTAL
03/03/2020 DART RESUBMITTAL
03/18/2020 RESUBMITTAL

SCALE AS NOTED

CREATED BY: WDS

SHEET
PLAN ELEV SECT

A-101



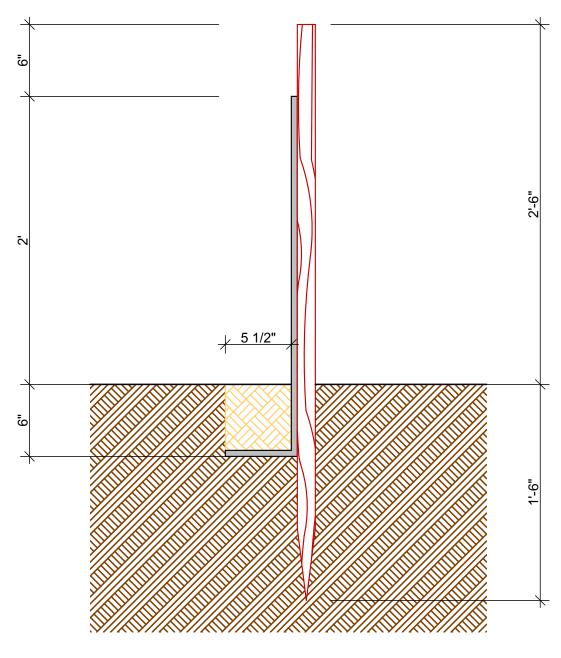
STAKES SHALL BE SECURED WITH WIRE

CIVIL-SILT FENCE ASSY

NOT TO SCALE

THE LAST 8'-0' OF FENCE SHALL BE TURNED UP SLOPE

FOR END STAKE, FENCE FABRIC SHALL BE FOLDED AROUND TWO STAKES ONE FULL TURN AND SECURED WITH 4 STAPLES



GENERAL NOTES -

51 INSTALL SILT FENCE IN A MANNER THAT WILL "DELAY" RUN-OFF AND ALLOW THE SEDIMENT TO SETTLE

KEYNOTES -

2X2 (NOMINAL) STAKES TO BE PLACED NO MORE THAN 8-FT OC SILT FENCE FABRIC TO BE BURIED IN 6" X 6" TRENCH AS INDICATED. TAMP BACKFILLED SOIL

CIVIL-SILT FENCE SECTION NOT TO SCALE

GENERAL NOTES -

WOOD SIDING

MASONRY VENEER OVER WOOD STUDS

51 UNLESS NOTED OTHERWISE, ALL MATERIALS TO BE INSTALLED PER THE APPLICABLE PROVISIONS OF THESE DOCUMENTS AND THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. 52 5% MIN SLOPE OF GRADE FOR AT LEAST 10-FT AWAY FROM FOUNDATION. 2% FOR IMPERVIOUS SURFACES

01

MANUFACTURED SIDING

STUCCO

moving forward

1825 STATE STREET STE 102

E: INFO@WINDWARDENG.COM

SANTA BARBARA, CA 93109

SANTA BARBARA, CA 93109

G-001 GENERAL AND SITE PLAN

G-002 ENERGY ANALYSIS

G-003 ENERGY ANALYSIS

G-004 GREEN CODE

A-601 SCHEDULES

G-005 GENERAL NOTES A-101 PLAN ELEV SECT

S-101 FOUNDATION/ 1ST STORY FRAMING PLAN

S-501 CONCRETE DETAILS

S-502 CONCRETE DETAILS

S-503 FRAMING DETAILS

S-504 FRAMING DETAILS

S-505 FRAMING DETAILS

P-101 PLUMBING PLAN

M-101 MECH PLAN

S-506 SW & SHEATHING DETAILS

SHEET INDEX

SANTA BARBARA, CA 93101

T: 805.845.6601

PROJECT

221 LA PLATA

CLIENT

DAVID MARCHETTI 221 LA PLATA

MARCHETTI ADU

KEYNOTES -

- 01 WATER-RESISTIVE BARRIER PER ARCHITECTURAL SPECIFICATIONS
- 02 6" MIN CLR BETWEEN WOOD SIDING & GRADE. CLEARANCE MAY BE REDUCED IF SIDING, SHEATHING, & LUMBER IS NATURALLY RESISTANT TO DECAY OR TREATED WITH PRESERVATIVE
- 03 A CORROSION RESISTANT WEEP SCREED, MADE FROM MIN 26 GA MATERIAL, WITH MIN 3-1/2" FLANGE, SHALL BE INSTALL AT BASE OF STUCCO. WEEP SCREED SHALL HAVE A MIN CLR TO GRADE OF 4" OR A 2" MIN CLR TO
- 04 MASONRY VENEER. INSTALL PER MFG INSTRUCTIONS
- SELF-ADHERING FLASHING WITH 4" MIN LAP OF FOUNDATION AND 6" MIN LAP UP WALL SHEATHING 06 WEEP SCREED
- GALVANIZED SHEET METAL FLASHING, MIN 24 GA, WITH MIN 3" FLANGE. UNO, SOLDER ALL JOINTS
- 08 BEDDING SEAL
- 09 2-LAYERS OF GRADE D WATER-RESISTIVE BARRIER PER ARCHITECTURAL SPECIFICATIONS
- CONS-EXTERIOR FINISHES @ GRADE

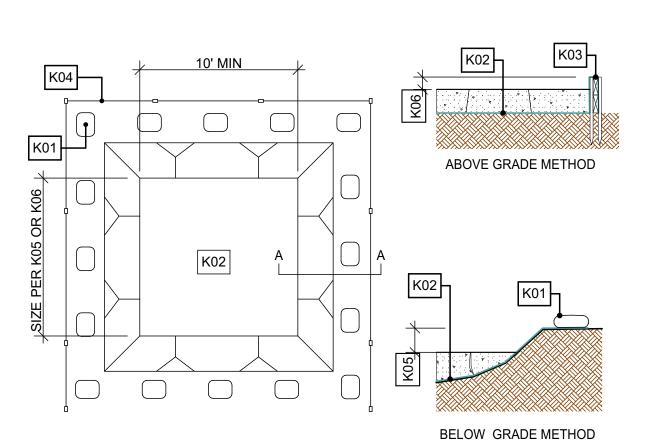
1/8" RADIUS 1/8" RECESSED SKIRT 5/8" RADIUS FULL BULLNOSE 5/8" RADIUS HALF BULLNOSE 1/8" RADIUS EASED EDGE OGEE EDGE QUARTER BEVEL EDGE 1-1/4" RADIUS DEMI BULLNOSE

3/4"

3/4" OGEE OVR

3/4" BULLNOSE

1/8" RADIUS



GENERAL NOTES -

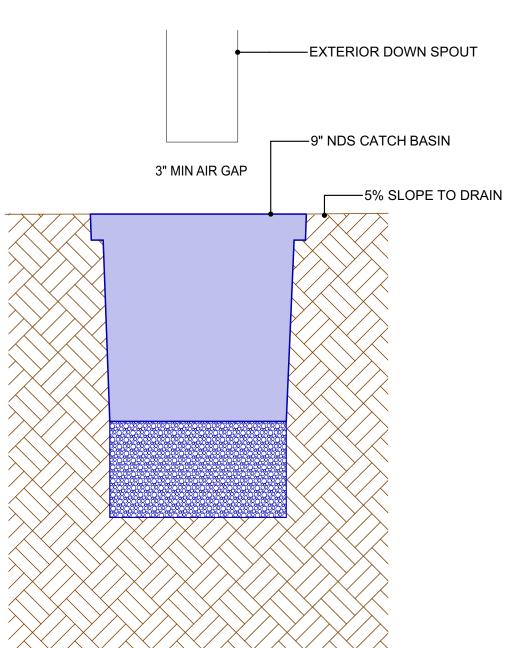
- G01 TEMPORARY CONCRETE WASHOUT FACILITIES SHALL BE LOCATED MIN 50 FT FROM STORMDRAIN INLETS, OPEN DRAINAGE FACILITIES, & WATERCOURSES. IF DEEMED INFEASIBLE, INLETS SHALL BE PROTECTED WITH SILT FENCE OR OTHER APPROVED
- G02 CONCRETE WASTE SHALL NOT BE ALLOWED TO ENTER STORM DRAINS OR WATERCOURSES
- G03 DO NOT ALLOW SAW-CUT CONCRETE SLURRY TO ENTER STORM DRAINS OR WATERCOURSES
- G04 HARDENED CONCRETE WASTE TO BE COLLECTED & PROPERLY DISPOSED OF.

KEYNOTES -

- 10 MIL PLASTIC LINING, SOIL BASE SHALL BE FREE OF ROCKS OR DEBRIS THAT MAY
- COMPROMISE THE IMPERMEABILITY OF THE MATERIAL K03 PERIMETER BOARDS & STAKES
- K04 LOW STAKED SILT FENCE ON 3 SIDES
- K05 BELOW GRADE WASHOUT SIZED TO PROVIDE A MIN FREEBOARD OF 12"
- K06 ABOVE GRADE WASHOUT SIZED TO PROVIDE A MIN FREEBOARD OF 4"

CIVIL-CONCRETE WASHOUT NOT TO SCALE

CIVIL-DOWNSPOUT @ CATCHBASIN NOT TO SCALE



4/9/2020 DATES

1/3/2020 INITIAL 03/03/2020 (E) FENCE SUBMITTA 03/03/2020 DART RE SUBMITTAL 03/18/2020 RESUBMITTAL

SCALE AS NOTED

CREATED BY: WDS

DATE:

SHEET

ARCH DETAILS

FINISH-COUNTERTOP EDGE DETAILS NOT TO SCALE

D TYPE	DESCRIPTION	MFG	PART#	NOTES
BASEBOAF	WOOD, 1X6, STAIN GRADE			
BASEBOAF	TILE		TBD	
CB1 CABINETR	VANITY			
CB2 CABINETR	VANITY, 30"			
CB3 CABINETR	FULL-HEIGHT & DESK			
CB4 CABINETR	MULTI-MEDIA & STORAGE			
CB5 CABINETRY	KITCHEN			
CB6 CABINETR	LAUNDRY LOWER & UPPERS			
CL1 CEILING TY	5/8" GYPSUM, CATS PAW FINISH, SQUARE CORNERS			
CS1 CASING	INTERIOR DOOR & WINDOW TRIM		TBD	
CT1 COUNTER	P GRANITE SLAB W/ONE ROW OF BACKSPLASH TILE		TBD	
CT2 COUNTER	P GRANITE SLAB W/ONE ROW OF BACKSPLASH TILE		TBD	
CT3 COUNTER	P GRANITE SLAB W/BACKSPLASH TILE TO UNDERSIDE OF CABINETS & BEHIND RANG	GE .	TBD	
CT4 COUNTER	P GRANITE SLAB AT KITCHEN ISLAND		TBD	
CT5 COUNTER	P GRANITE SLAB AT BATHROOM		TBD	
F1 EXTERIOR	NISH (E) BOARD AND BATTEN			
F2 EXTERIOR	NISH STONE VENEER WAINSCOT	ELDORADO STONE	SANTA BARBARA	
ET1 EXTERIOR	RIM (E) 1X4			
FASCIA	NONE			
FL1 FLOORING	ENGINEERED WOOD		TBD	
FL2 FLOORING	TILE		TBD	
FL3 FLOORING	POLISHED CONCRETE			
GUTTER	(E) COPPER, 4" HALF-ROUND, 3" ROUND DOWNSPOUTS			
P1 PAINT	PAINT, INTERIOR, FLAT, TYPICAL WALL AREAS	ICI PAINTS	TBD	
P2 PAINT	PAINT, INTERIOR, SATIN, KITCHEN AND BATH WALLS	ICI PAINTS	TBD	
P3 PAINT	PAINT, INTERIOR, FLAT, TYPICAL CEILINGS	ICI PAINTS	TBD	
P4 PAINT	PAINT, INTERIOR, SATIN, BATH CEILINGS	ICI PAINTS	TBD	
P5 PAINT	PAINT, INTERIOR, SEMI-GLOSS, TYPICAL TRIM AND DOORS	ICI PAINTS	TBD	
P6 PAINT	PAINT, EXTERIOR, SEMI-GLOSS, EXTERIOR DOOR CASING & JAMB	ICI PAINTS	(E)	MATCH (E)
P7 PAINT	PAINT, EXTERIOR, SEMI-GLOSS	ICI PAINTS	(E)	MATCH (E)
R1 ROOFING	PVC			
Γ1 TILE	12X12 BATHTUB & SHOWER SURROUND TILE TO CEILING		TBD	
Γ2 TILE	RECESSED SHELF, 13X13			
TILE	SHOWER FLOOR TILE, 6X6 OR SMALLER		TBD	
WF1 WALL FINIS	5/8" GYPSUM, CATS PAW FINISH, SQUARE CORNERS			
WF2 WALL FINIS	PAINT FINISH, SQUARE CORNERS			

\cap	Materia	l schedule	and	location	١

DOOR SCH	IEDULE																
ID	ELEVATION	WIDTH	HT	TH	łCK	QTY	DESCRIF	PTION	GLZ	TEMP	ŀ	HINGES	LOCKSET	СОММЕ	ENTS	U-FACTOR	SHGC
D01		12'-0"	8'-0"	1 3/4"	"	1	FOLDING		DUAL	Y	OIL RUE	BBED BRONZE	KEYED			0.29	0.23
D02		2'-6"	6'-8"	1 3/8"	"	1	SWING, SINGLE LITE, OPAC	QUE	SINGL	Y	OIL RUE	BBED BRONZE	PRIVACY				
D03		2'-6"	6'-8"	1 3/8"	"	1	SWING, SINGLE LITE, OPAC	QUE	SINGL	Y	OIL RUE	BBED BRONZE	PRIVACY				
D04		4'-10"	6'-8"	1 3/8"	"	1	BI-FOLD LOUVERED						PULL				
D06		6'-0"	6'-8"	1 3/8"	"	1	BI-FOLD LOUVERED						PULL				
WINDOW S									•		•						
ID	ELEVATION	WII	DTH	HT	HE	AD HT	TYPE	С	DESCRIPTION		GLZ	U-FACTOR	SHGC	TEMP	EGRESS	HARD	WARE
W01		2'	-6"	5'-0"	6	5'-8"	SLIDING	BEDROOM			DUAL	0.32	0.25		YES	OIL RUBBED	BRONZE

design services, llc moving forward

1825 STATE STREET STE 102 SANTA BARBARA, CA 93101 T: 805.845.6601 E: INFO@WINDWARDENG.COM

PROJECT

MARCHETTI ADU 221 LA PLATA SANTA BARBARA, CA 93109

CLIENT

DAVID MARCHETTI 221 LA PLATA SANTA BARBARA, CA 93109

SHEET INDEX

G-001 GENERAL AND SITE PLAN

G-002 ENERGY ANALYSIS G-003 ENERGY ANALYSIS

G-004 GREEN CODE

G-005 GENERAL NOTES

A-101 PLAN ELEV SECT A-601 SCHEDULES

S-001 GENERAL

S-101 FOUNDATION/ 1ST STORY FRAMING PLAN S-501 CONCRETE DETAILS

S-502 CONCRETE DETAILS S-503 FRAMING DETAILS

S-504 FRAMING DETAILS

S-505 FRAMING DETAILS

S-506 SW & SHEATHING DETAILS

P-101 PLUMBING PLAN

M-101 MECH PLAN

4/9/2020 DATES

1/3/2020 INITIAL 03/03/2020 (E) FENCE SUBMITTAL 03/03/2020 DART RESUBMITTAL 03/18/2020 RESUBMITTAL

SCALE AS NOTED

CREATED BY: WDS

SHEET

SCHEDULES

S-STRUCTURAL NOTES

- 1.1 ALL MATERIALS AND WORKMANSHIP ARE SUBJECT TO THE REVIEW OF THE ARCHITECT AND STRUCTURAL
- 1.2 DO NOT SCALE THE DRAWINGS TO OBTAIN DIMENSIONS
- 1.3 UNO, REFER TO ARCHITECURAL DRAWINGS FOR DIMENSIONS
- DISCREPANCIES
- 2.1 REPORT ANY AND ALL DISCREPANCIES, AMBIGUITIES, UNCLEAR ITEMS OR ITEMS THAT ARE SUBJECT TO MORE THAN ONE INTERPRETATION, ON THE DRAWINGS AND/OR SPECIFICATIONS TO THE STRUCTURAL ENGINEER FOR CLARIFICATION BEFORE PROCEEDING WITH WORK
- 2.2 VERIFY ALL DIMENSIONS PRIOR TO STARTING WORK. THE ARCHITECT AND STRUCTURAL ENGINEER ARE TO BE NOTIFIED OF ANY DISCREPANCIES OR INCONSISTENCIES. CHECK AND COORDINATE ALL DIMENSIONS. SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONS AND NON STRUCTURAL ITEMS NOT SHOWN ON THESE PLANS
- DEMOLITION
- DESIGN AND INSTALL ALL TEMPORARY BRACING AND SHORING TO ENSURE THE SAFETY OF THE WORK UNTIL IT IS IN ITS COMPLETED FORM. WHEN REQUIRED BY LAW, EMPLOY A CIVIL ENGINEER TO DESIGN SHORING, BRACING AND INSTALLATION PLANS FOR STRUCTURAL ITEMS
- 4.1 ALL SCAFFOLDING AND SHORING IS TO COMPLY WITH THE RULES AND REGULATIONS OF THE INDUSTRIAL SAFETY COMMISSION OF THE STATE OF CALIFORNIA
- 5.1 ALL EXCAVATIONS TO COMPLY WITH THE RULES AND REGULATIONS OF THE INDUSTRIAL SAFETY COMMISSION OF THE STATE OF CALIFORNIA
- 5.2 IF SOILS REPORT PRODUCED FOR PROJECT, OBSERVE EXCAVATION REQUIREMENTS STIPULATED WITHIN

SI- SPECIAL INSPECTIONS & STRUCTURAL OBSERVATIONS

- 1.0 ALL SPECIAL INSPECTIONS SHALL CONFORM TO CHAPTER 17 OF THE CALIFORNIA BUILDING CODE
- CONTRACTOR TO OBTAIN APPROPRIATE SPECIAL INSPECTION/OBSERVATION REPORT DOCUMENTATION PRIOR TO REQUESTING AN INSPECTION BY THE LOCAL BUILDING AUTHORITY
- 3.0 WINDWARD TO OBSERVE REINFORCEMENT STEEL PRIOR TO CONCRETE PLACEMENT
- 4.0 WINDWARD TO OBSERVE FRAMING & SHEAR WALL NAILING AFTER PLUMBING, MECHANICAL & ELECTRICAL ROUGH-IN WORK HAS BEEN COMPLETED
- 5.0 CALL 48 HOURS IN ADVANCE TO SCHEDULE INSPECTIONS

GN- GENERAL NOTES

- 1.0 ALL CONSTRUCTION SHALL CONFORM TO THE 2019 CBC, 2019 CRC, 2019 CMC, 2019 CEC, 2019 CPC, 2019 CALIFORNIA GREEN BUILDING STANDARDS CODE, 2019 CFC, 2019 CA ENERGY COMMISSION STANDARDS & ALL CITY OF SANTA BARBARA AMENDMENTS AS ADOPTED IN SANTA BARBARA CITY ORDINANCE 5780.
- 2.0 MARBORG INDUSTRIES SHALL BE USED FOR ALL CONSTRUCTION WASTE AND RECYCLING
- UNLESS NOTED OTHERWISE, ALL MATERIALS AND EQUIPMENT TO BE INSTALLED PER THE APPLICABLE PROVISIONS OF THESE DOCUMENTS AND THE MANUFACTURER'S INSTALLATION INSTRUCTIONS
- 4.0 THESE DOCUMENTS CONVEY MINIMUM CONSTRUCTION REQUIREMENTS AND ARE TO BE USED WHERE THE APPLICABLE CONDITIONS OCCUR. MORE STRINGENT REQUIREMENTS STIPULATED WITHIN RELEVANT MANUFACTURER'S INSTALLATION INSTRUCTIONS WILL SUPERSEDE
- 5.0 ALL WORK TO BE PERFORMED BY LICENSED & INSURED CONTRACTOR
- 6.0 THE CONTRACTOR IS RESPONSIBLE FOR MEANS, METHODS, AND TECHNIQUES FOR CONSTRUCTION
- 7.0 ALL OSHA REGULATIONS SHALL BE FOLLOWED. GENERAL CONTRACTOR & EACH SUB-CONTRACTOR RESPONSIBLE FOR JOB-
- 8.0 EACH SUBCONTRACTOR IS RESPONSIBLE FOR DEPOSITING DEBRIS RESULTING FROM THEIR WORK IN THE JOB-SITE CONTAINER
- 9.0 ALL DIMENSIONS, UNLESS OTHERWISE INDICATED, ARE TO FACE OF STUD, CONCRETE, OR MASONRY
- 10.0 SEE FORMS CF-1R & MF-1R SPECIFYING THE REQUIRED/MANDATORY ENERGY FEATURES FOR: WALL/CEILING INSULATION, WINDOW AREAS AND TYPES, HVAC SYSTEMS AND EFFICIENCY, DUCT INSULATION AND TESTING, LIGHTING TYPE AND SWITCHING, AND PIPE/HEATER INSULATION. PROVIDE COMPLETED FORM CF-6R UPON FINAL INSTALLATION OF ALL ENERGY
- REQUIRE A SURVEY TO VERIFY PROPOSED FOOTPRINT OF THE STRUCTURE PRIOR TO FOOTING INSPECTION. PROVIDE SURVEYOR VERIFICATION TO INSPECTOR IF REQUESTED BY BUILDING OFFICIAL
- 12.0 UNO, ALL REFERENCED STRUCTURAL HARDWARE TO BE FROM SIMPSON STRONG-TIE (ESR-2523)
- SHALL BE PLACED IN THE BUILDING. THE MANUAL SHALL INCLUDE ALL OF THE ITEMS LISTED ON THE CALIFORNIA GREEN BUILDING STANDARDS CODE SECTION 4.410.1 [CGBSC 4.410]

Ø	SYMBOLS & ABBREVIATIONS DIAMETER	IA/IA/DIA/A DI
AB#	ANCHOR BOLT PER (6-S-501)	WINDWARI
BLK	FULL DEPTH BLOCKING	design services, I
BM	BEAM =:=:=:=:===	
BN BP	BOUNDRY NAIL PER (S-506) BOTTOM PLATE	moving forwa
BTB	BEAM TO BEAM	1825 STATE STREET STE 102
СВ	CEILING BEAM =:=:=:=:===	SANTA BARBARA, CA 93101
CCJ	CONCRETE CONTROL JOINT	T: 805.845.6601 E: INFO@WINDWARDENG.COM
CJ	CEILING JOIST	
CJP COL	COMPLETE JOINT PENETRATION GROOVE WELD COLUMN	PROJECT
CR	COMMON RAFTER	MARCHETTI ADU
CW#	CONCRETE WALL & APPROX HEIGHT - SEE ARCH PLANS	221 LA PLATA
СТ	COLLAR TIE	SANTA BARBARA, CA 93109
DCW	DEMAN CRITICAL WELD PER ANSI/AISC 358	CLIENT
DP DWL	DRILLED PIER DOWEL	
EN EN	EDGE NAIL PER (S-506)	DAVID MARCHETTI 221 LA PLATA
EW	EACH WAY	SANTA BARBARA, CA 93109
FB	FLOOR BEAM =:=:=:=:===	ALIEFT INDEV
FSC	FASCIA	SHEET INDEX
FJ FN	FLOOR JOIST FIELD NAIL PER (S-506)	O OOA OFNEDAL AND OUTE DIAM
GB#	GRADE BEAM PER FOUNDATION SCHEDULE	G-001 GENERAL AND SITE PLAN
GRDR	GIRDER	G-002 ENERGY ANALYSIS
HDR	HEADER PER (6-S-504)	G-003 ENERGY ANALYSIS
HLA	HORIZONTAL STEEL PARALLEL TO LONG AXIS	G-004 GREEN CODE
HP	HELICAL PIER	G-005 GENERAL NOTES
HPB HR	HOLDOWN POST TO BEAM HIP RAFTER	A-101 PLAN ELEV SECT
HSA	HIP RAFTER HORIZONTAL STEEL PARALLEL TO SHORT AXIS	A-601 SCHEDULES
H&S	STRAPS	S-001 GENERAL
IMF	INTERMEDIATE MOMENT FRAME	S-101 FOUNDATION/ 1ST STORY FRAMING PLAN
JR	JACK RAFTER	S-501 CONCRETE DETAILS
KP KS	KING POST KING STUD	S-502 CONCRETE DETAILS
LDGR	LEDGER :	S-503 FRAMING DETAILS
LE	LENGTH OF EMBEDMENT INTO FOOTING	S-504 FRAMING DETAILS
LSL	ILEVEL, TIMBERSTRAND, (ESR-1387)	S-505 FRAMING DETAILS
LVL	ILEVEL, MICROLLAM, (ESR-1387)	S-506 SW & SHEATHING DETAILS
MW#	MASONRY WALL & APPROX HEIGHT - SEE ARCH PLANS	P-101 PLUMBING PLAN
NLR	NAILER	M-101 MECH PLAN
OC OMF	ON CENTER (CENTER-TO-CENTER) SPACING ORDINARY MOMENT FRAME	
PA	POST ABOVE	
PAP	PER ARCHITECTURAL PLANS	
PB	POST BELOW	
PED	PEDESTAL	
PLC PP	PLACES PER PLAN	
PRL	PURLIN	
PS	PER SCHEDULE	
PSL	ILEVEL, PARALLAM, (ESR-1387)	
PST	WOOD POST	
PTB PTP	POST TO BEAM POST TO POST (ABOVE OR BELOW)	
RAB	EPOXY RETROFIT	
RB	ROOF OR RIDGE BEAM =:=:=:=:=	
RBS	REDUCED BEAM SECTION	
RJ	RIM JOIST	
RR RTR	ROOF RAFTER ROOF RAFTER TO ROOF RAFTER	
RTR SB	ROOF RAFTER TO ROOF RAFTER STRONGBACK	
SBP	STEEL BASE PLATE	
SCC	SLIP-CRITICAL CONNECTION	
SMF	SPECIAL MOMENT FRAME	
SOG# SP	SLAB ON GRADE & ID #	
SP STD	SILL PLATE STUD	
STR	STAIR STRINGER	
SW#	SHEAR WALL PER (S-506)	
TJI	ILEVEL TRUSS JOIST (ESR-1153)	
TP	TOP PLATES	
TRM	TRIMMER	
TYP	TYPICAL CONDITION WHERE OCCURS	
UNO VLA	UNLESS NOTED OTHERWISE VERTICAL STEEL PARALLEL TO LONG AXIS	
VLA VR	VALLEY RAFTER	DEESO(
VSA	VERTICAL STEEL PARALLEL TO SHORT AXIS	PED PROI 20010 NA
	X-X: SHEAR WALL LENGTH	PROFESSIONAL FIRMER OF STATE O
X-X SWX/ABX	SW: SHEAR WALL LEVEL/AB: ANCHOR BOLT SPACING	10000000000000000000000000000000000000
· · · · · ·	NEW CONCRETE	
D	EVICTING CONCRETE	RENEWAL-3/3/721
	EXISTING CONCRETE	FOF CALIFORNIA
	HOLDOWNS	OF CAL!
Φ_	HDU2-SDS2.5 PER (7-S-502)	DATE: 4/9/2020
⊕	HDU4-SDS2.5 PER (7-S-502) HDU5-SDS2.5 PER (7-S-502)	
•	HDU8-SDS2.5 PER (7-S-502)	DATES
•	HDU11-SDS2.5PER (7-S-502)	1/3/2020 INITIAL
₩	HDU14-SDS2.5 PER (7-S-502)	03/03/2020 (E) FENCE SUBMIT
	STRAPS	03/03/2020 DART RESUBMITTA

- 11.0 PROJECTS WITH ZONING MODIFICATION APPROVALS, WITHIN 12" OF A SETBACK, OR WHERE CONDITIONS WARRANT, MAY
- 13.0 AT THE TIME OF FINAL INSPECTION, AN OPERATION AND MAINTENANCE MANUAL, COMPACT DISC, OR WEB BASED REFERENCE

03/03/2020 (E) FENCE SUBMITTAL 03/03/2020 DART RESUBMITTAL

03/18/2020 RESUBMITTAL SCALE AS NOTED

CREATED BY: WDS PLACEMENT EXTENT SHEET

COIL STRAP PER PLAN(#DrgID(ref)-#LayID(ref))

FRAMING MEMBER

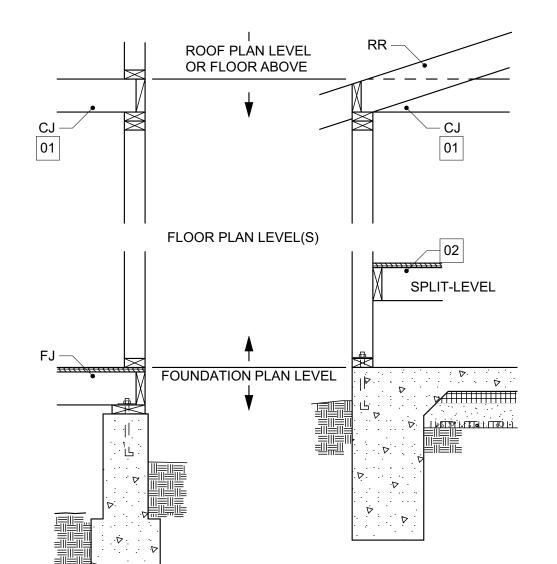
INSULATED WALL

WALLS ABOVE

NON-INSULATED WALL

XXXXX STRAP

GENERAL



SPECIAL INSPECTION AGENCIES

PACIFIC MATERIALS LABORATORIES

35 SOUTH LA PATERA LANE

GOLETA, CALIFORNIA 93117

TEL: 805.964.6901 FAX: 805.964.6239

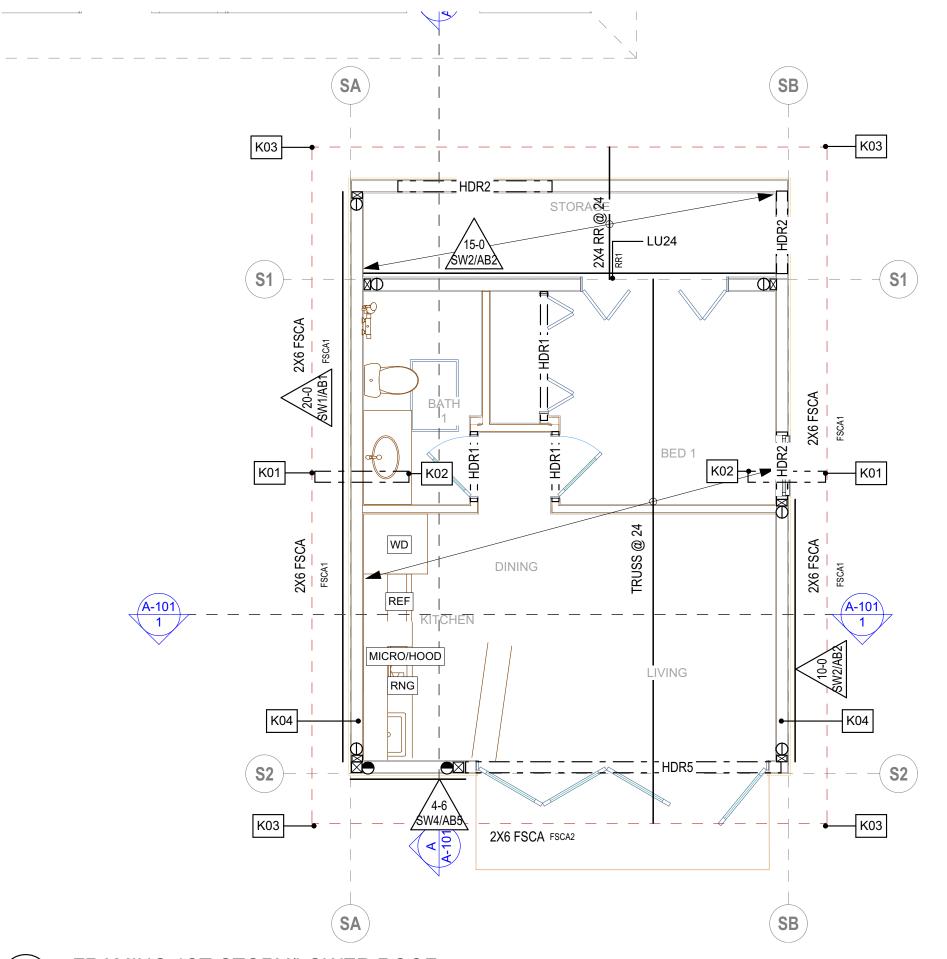
GENERAL NOTES -

51 ROOF PLANS MAY BE MERGED WITH FLOOR PLANS ON RELATIVELY SIMPLE PROJECTS WHERE THE ADDITIONAL INFORMATION WILL NOT UNDULY REDUCE READABILITY

KEYNOTES -

- REFERENCED AS "CJ" IN PLAN VIEWS REGARDLES OF SINGLE OR MULTIPLE-STORY APPLICATIONS. IE, 2ND-STORY FLOOR JOISTS WILL BE REFFERED TO AS "CJ" ON THE 1ST-STORY FRAMING PLAN
- 02 SPLIT-LEVELS REFERENCED AS "FJ" IN PLAN VIEWS
- **NOTES-PLAN CUT LINES**

						FOOTING SCHED	ULE				
ID	DETAIL LOCATION	DETAIL NAME	DIMENSIONS W X L X D	HLA	HSA	VLA	VSA	PED DIMS W X L X D	PED STIRRUP	PED DOWELS	NOTES
F1	(4-S-502)	CONC-SOG FOUNDATION TO 24" DP	1-0 X PP X 1-6	2 - #4	NA	#4 @ SLAB OC	NA	NA	NA	NA	TIE VLA TO SLAB STL
F2	(3-S-502)	CONC-SOG @ INTERIOR FTNG	1-0 X PP X 1-6	2 - #4	NA	#4 @ SLAB OC	NA	NA	NA	NA	TIE VLA TO SLAB STL
F3	(6-S-502)	CONC-SOG EXTERIOR SAND BASE	1-0 X PP X 1-6	2 - #4	NA	#4 @ SLAB OC	NA	NA	NA	NA	TIE VLA TO SLAB STL
SOG1	(4-S-502)	CONC-SOG FOUNDATION TO 24" DP	4" THICK	#4 @ 24 OC	#4 @ 24 OC	NA	NA	NA	NA	NA	
SOG2	(6-S-502)	CONC-SOG EXTERIOR SAND BASE	4" THICK	#4 @ 24 OC	#4 @ 24 OC	NA	NA	NA	NA	NA	2% SLOPE AWAY FROM DOOR OPENING
			'				'		'	-	



FOUNDATION PLAN

GENERAL NOTES -

- REFER TO SYMBOLS & ABBREVIATIONS LEGEND FOR DEFINITIONS & RELATED DETAIL CALLOUT
- LUMBER PER 8-S-503 FOR GENERAL LUMBER & CONNECTION REQUIREMENTS. LUMBER MOISTURE CONTENT TO BE LESS THAN 19% AT TIME OF INSTALLATION

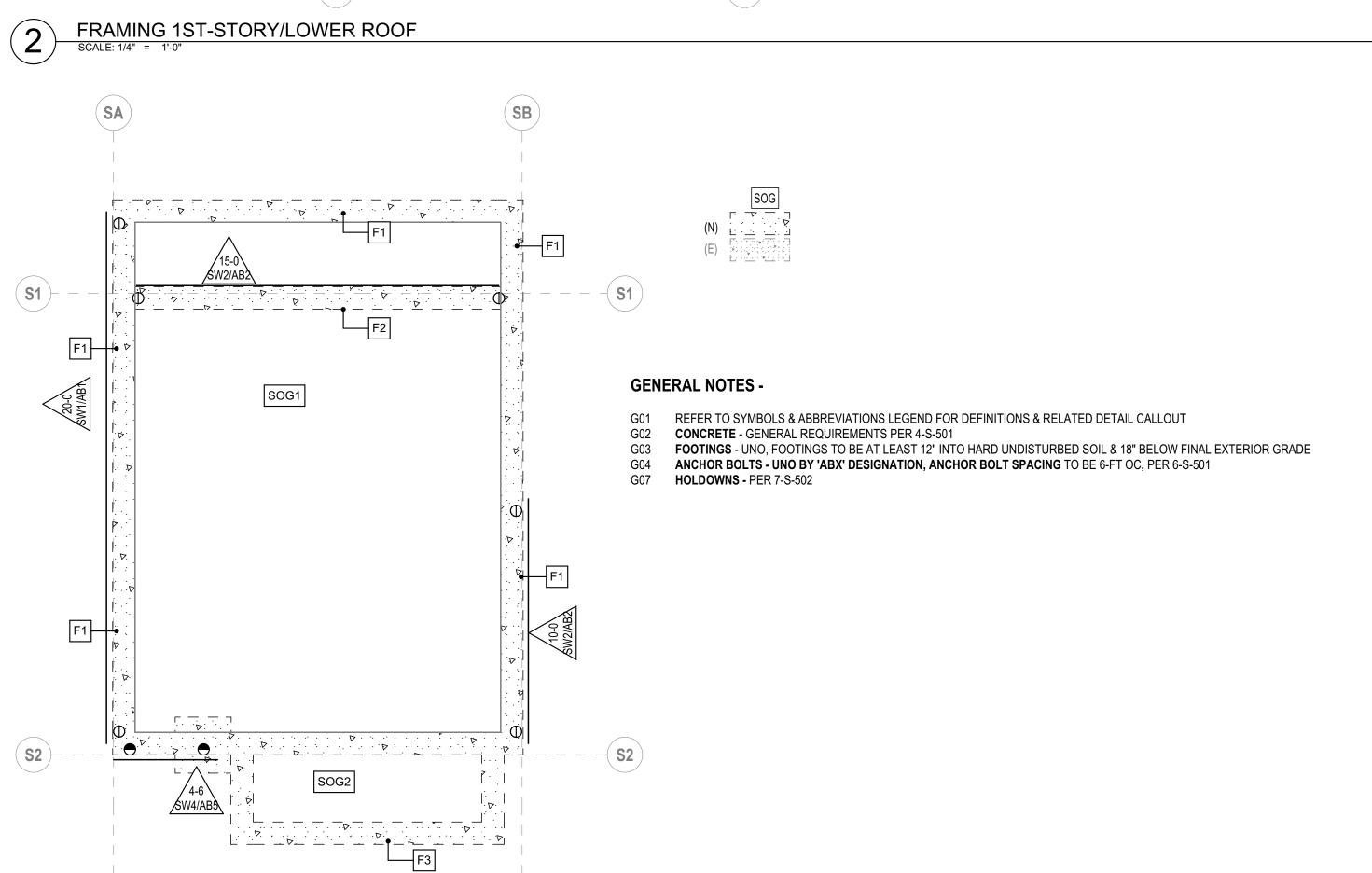
 NAILING PER 7-S-503 FOR GENERAL NAILING REQUIREMENTS. HALSTEEL, TRUESPEC (COLOR-CODED) NAILS OR EQUIVALENT TO BE USED. NAIL DIAMETERS DEFINED AS: 8D (0.131), 10D (0.148), 16D (0.162), 20D (0.192). TOENAILING PER 7-
- S-503 NOT TO EXCEED 8D. **UNO, 16D TOENAILING NOT ALLOWED**G04 **WALL FRAMING** PER 1-S-503. UNO, EXTERIOR WALL WIDTH TO BE 6" NOMINAL & INTERIOR WALL WIDTH TO BE 4" NOMINAL
- G05 WALL OPENINGS PER 6-S-504
 G06 HEADERS UNO, TO BE PER 6-S-504
- G07 POSTS UNO, TO BE 4X4 WITH CONNECTIONS PER 3-S-504 FRMNG-PST/BM CONNECTIONS @ WALL
- G08 FLOOR SHEATHING TYPICAL FLOOR SHEATHING PER S-506
- G10 SHEAR WALL & SHEATHING PER S-506. UNO, ALL EXTERIOR WALLS TO BE SHEATHED
 G11 TYPICAL ROOF-TO-WALL, FLOOR-TO-FLOOR, & FLOOR-TO-FOUNDATION CONNECTIONS PER S-506

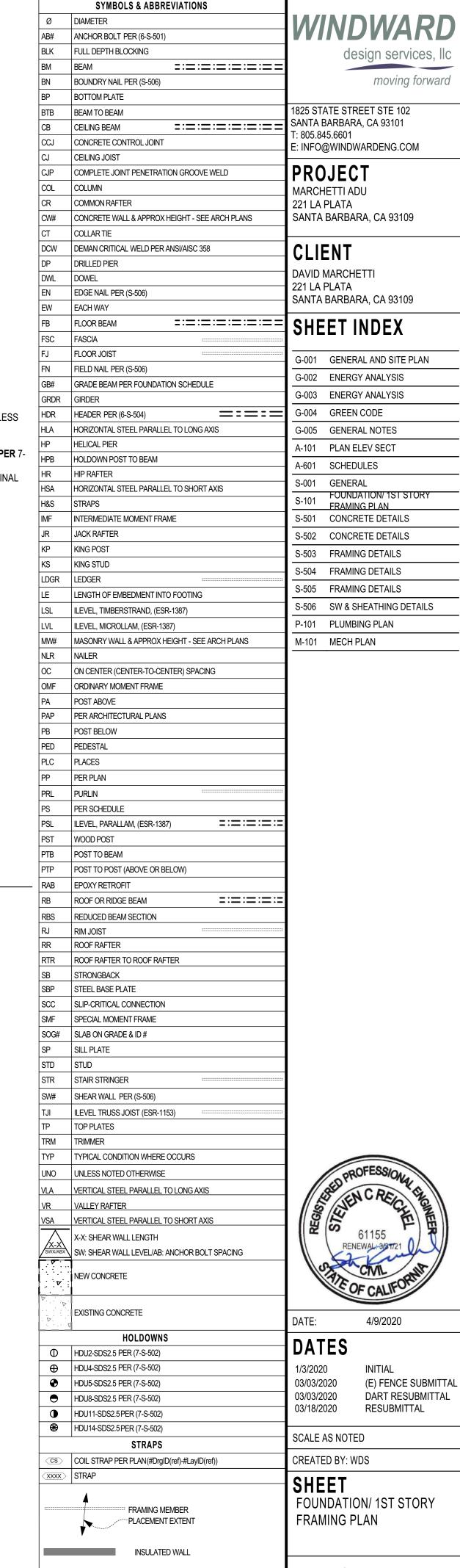
KEYNOTES -

- K01 6X6 OUTLOOKER TO FSCA 2-16D NAILS EA FSCIA 4-TOTAL
- K02 EN 2-16D TO TRUSS AVOID CONNECTION HARDWARE @ JOINT

ROOF SHEATHING - TYPICAL ROOF SHEATHING PER S-506

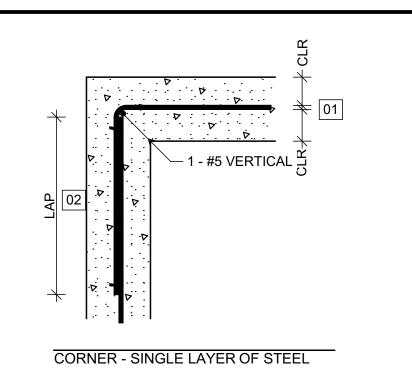
K03 FSCA PER 4-S-505 FRMNG-FASCIA K04 BALLOON FRAME WALLS

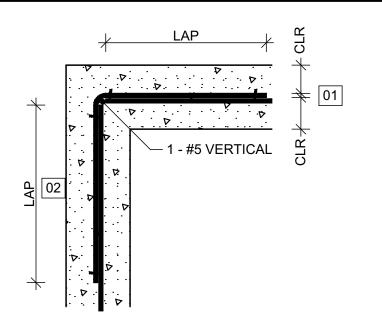




NON-INSULATED WALL

WALLS ABOVE

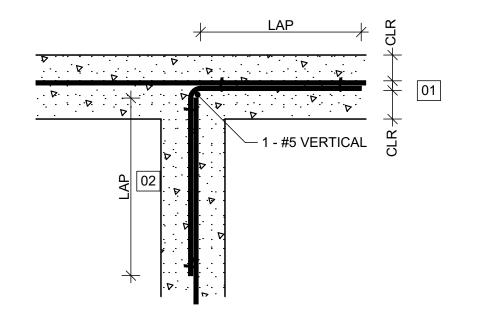




ALTERNATE CORNER - SINGLE LAYER OF STEEL

- 2 - #4 VERTICAL

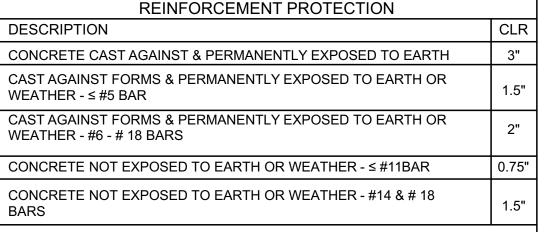
ALTERNATE CORNER - DOUBLE LAYER OF STEEL

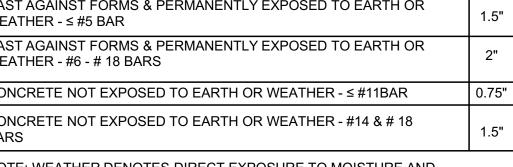


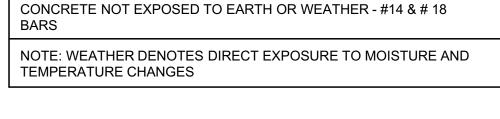
— 3 - #4 VERTICAL

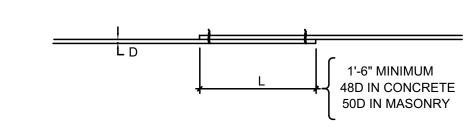
INTERSECTION - SINGLE LAYER OF STEEL

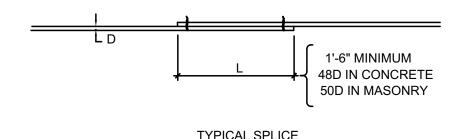
INTERSECTION - DOUBLE LAYER OF STEEL

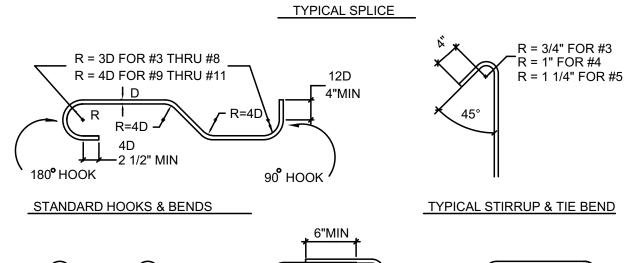


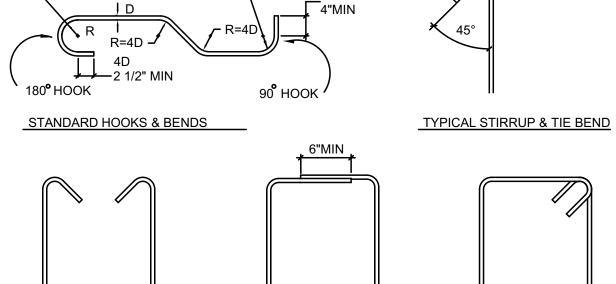














- 2 - #4 VERTICAL

51 ALL HORIZONTAL BARS IN WALLS, FOOTINGS, & BEAMS TO BE CONTINUOUS AROUND CORNERS AND INTERSECTIONS

KEYNOTES -

REFER TO REINFORCEMENT PROTECTION SCHEDULE REFER TO CONC-REINFORCEMENT FOR LAPS & BENDS

CORNER - DBL LAYER OF STEEL

REQUIREMENTS



OPEN STIRRUP

GENERAL NOTES -

- UNLESS NOTED OTHERWISE OR APPROVED BY LICENSED DESIGN
- PROFFESIONAL, PARTIALLY EMBEDDED REINFORCEMENT NOT TO BE FIELD BENT REINFORCING BARS ARE TO BE OF INTERMEDIATE GRADE CONFORMING TO ASTM A 615 GRADE 60

CLOSED STIRRUP

COLUMN TIE

CONC - CONCRETE NOTES

B - BEAMS AND COLUMNS: 3.000 PSI

(BY WEIGHT) RESPECTIVELY.

- 1.1 UNLESS NOTED OTHERWISE, ALL MATERIALS AND EQUIPMENT TO BE INSTALLED PER THE APPLICABLE PROVISIONS OF THESE DOCUMENTS AND THE MANUFACTURER'S INSTALLATION INSTRUCTIONS
- REFER TO DETAIL SHEETS FOR TYPICAL CONSTRUCTION REQUIREMENTS
- 2.1 UNO PER PLAN, MINIMUM ULTIMATE COMPRESSIVE STRENGTH AT 28 DAYS AS FOLLOWS: A - FOOTINGS, FLAT WORK, AND MISCELLANEOUS ITEMS
 - A-1 LIGHT-FRAME CONSTRUCTION WITH OCCUPANCIES R AND U <= 2 STORIES IN HEIGHT: 2,500 PSI A-2 SEISMIC ZONES A,B & C: 2,500 PSI A-3 OTHER THAN AS NOTED ABOVE, STRUCTURES >= SEISMIC ZONE D: 3,000 PSI
- C GRADE BEAMS: 3,000 PSI 2.2 CEMENT IS TO BE TYPE II, LOW ALKALI (NO HIGHER THAN .4%), CONFORMING TO ASTM C 150. UP TO A
- MAXIMUM OF 18% OF CEMENT MAY BE SUBSTITUTED WITH FLYASH (TYPE "F"). 2.3 ALL AGGREGATE USED IN CONCRETE ARE TO CONFORM TO ASTM C 33. AGGREGATE SHALL BE

UNIFORMLY GRADED, WITH THE MAXIMUM AGGREGATE SIZE REQUIRED TO BE 1" TO 3/4".

- COARSE AND FINE AGGREGATE (SAND) ARE TO COME FROM A SOURCE PROVEN TO HAVE NON-REACTIVE CHARACTERISTICS. COARSE AGGREGATE WHICH IS HEAVY MEDIA PROCESSED (SATICOY, SISQUOC), SANTA MARGARITA ROCK, OR SAN GABRIEL ROCK WILL BE CONSIDERED AS MEETING THE CRITERIA OF NON-REACTIVITY. MOORPARK SAND (QUALITY, BEST, BLUE STAR) WILL BE CONSIDERED AS MEETING THE REQUIREMENTS OF NON-REACTIVITY. OTHER AGGREGATES MEETING OR EXCEEDING THE AGGREGATE REACTIVITY CHARACTERISTICS OF THE AGGREGATES LISTED ABOVE ARE ACCEPTABLE UPON SUBMITTAL OF ADEQUATE DOCUMENTATION (ASTM C289 AND ASTM C277 TEST RESULTS THAT ARE NOT MORE THAN 2 YEARS OLD). USE AN APPROXIMATE 60% TO 40% RATIO OF COARSE AGGREGATE TO FINE AGGREGATE
- 2.5 SECURE IN POSITION PRIOR TO INSPECTION AND POURING CONCRETE, ALL ANCHOR BOLTS, HOLDOWN ANCHORS, REINFORCING STEEL, DOWELS, INSERTS, ETC. FOR ANCHOR BOLTS AND HOLDOWNS, USE SIMPSON ANCHOR BOLT HOLDERS. STABBING BOLTS AFTER POURING SLAB NOT ALLOWED.
- CONCRETE SHALL CONTAIN A MINIMUM OF 5.5 SACKS OF CEMENT PER CUBIC YARD, A MAXIMUM WATER/CEMENT RATIO OF 0.5, AND SHALL HAVE A SLUMP NO GREATER THAN 4". DO NOT EXCEED 36
- GALLONS OF WATER PER CUBIC YARD OF CONCRETE (6.5 GAL/SACK). CONTINUOUS INSPECTION BY A DEPUTY INSPECTOR APPROVED BY THE BUILDING DEPARTMENT IS
- REQUIRED FOR ALL CONCRETE WITH AN ULTIMATE COMPRESSIVE STRENGTH GREATER THAN 2500 PSI MAKE AND TEST CONCRETE CYLINDERS IN ACCORDANCE WITH SECTION 1905 CBC
- 2.9 SPRAY SLABS WITH A CURING COMPOUND IMMEDIATELY AFTER FINISHING
- 2.10 DO NOT PLACE BACKFILL BEHIND RETAINING WALLS SOONER THAN 14 DAYS AFTER CONCRETE OR 2.11 VIBRATE ALL CONCRETE AS IT IS BEING PLACED WITH ELECTRICALLY OPERATED VIBRATING EQUIPMENT

FOUNDATIONS

- REINFORCING BARS ARE TO BE OF INTERMEDIATE GRADE CONFORMING TO ASTM A 615 GRADE 60
- 3.2 WELDED REINFORCING BARS TO CONFORM TO ASTM A706

- 4.1 DRYPACK MAY BE USED UNDER BASE PLATES WHOSE LARGEST DIMENSION DOES NOT EXCEED 12
- INCHES. MIX IN THE PROPORTIONS OF 1 PART PORTLAND CEMENT TO 2 1/2 PARTS SAND. ADD ONLY ENOUGH WATER SO THAT A PALM SIZED BALL OF DRYPACK WILL RETAIN ITS SHAPE 4.2 WHERE THE LARGEST DIMENSION OF A BEARING OR BASE PLATE EXCEEDS 12 INCHES, OR FOR SMALLER PLATES, USE A POURABLE NON SHRINK, NON-METALLIC, HIGH STRENGTH GROUT. MINIMUM 7 DAY
- ULTIMATE COMPRESSIVE STRENGTH IS 5,000 PSI. INSTALL IN CONFORMANCE TO THE MANUFACTURER'S RECOMMENDATIONS.
- UNLESS NOTED OTHERWISE, ALL FOOTINGS TO EXTEND A MINIMUM OF 18 INCHES BELOW FINISHED GRADE & 12 INCHES INTO UNDISTURBED SOIL
- PRIOR TO POURING CONCRETE FOUNDATIONS, ALL LOOSE EARTH, WATER, AND DEBRIS IS TO BE REMOVED FROM FOUNDATION BED PROVIDE FOR DE WATERING OF ALL EXCAVATIONS FROM EITHER SURFACE WATER OR SEEPAGE
- PROTECT ALL FOUNDATION EXCAVATIONS ON THE SITE FROM CAVING. OBSERVE OSHA REQUIREMENTS SECURE IN POSITION PRIOR TO INSPECTION AND POURING CONCRETE OR GROUTING BLOCK, ALL
- ANCHOR BOLTS, HOLDOWN ANCHORS, REINFORCING STEEL, DOWELS, INSERTS, ETC. FOR ANCHOR BOLTS AND HOLDOWNS, USE SIMPSON ANCHOR BOLT HOLDERS OR EQUA. STABBING BOLTS AFTER POURING WILL NOT BE ALLOWED
- FRAMING CONTRACTOR TO INSPECT LOCATION OF SHEAR WALLAB & HOLDOWNS PRIOR TO POUR
- ANCHOR BOLTS
- 6.1 UNO, ANCHOR BOLTS AND THREADED STUDS (HOOKED, HEADED AND THREADED ANCHOR RODS) TO CONFORM TO ASTM F1554, GRADE 36

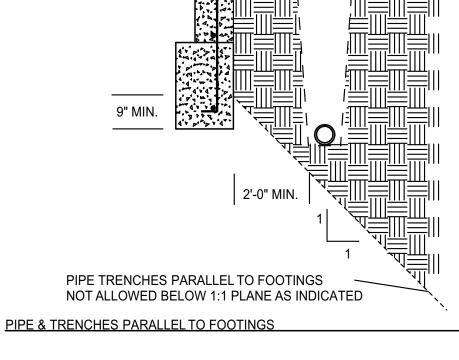
CONC-CONCRETE NOTES

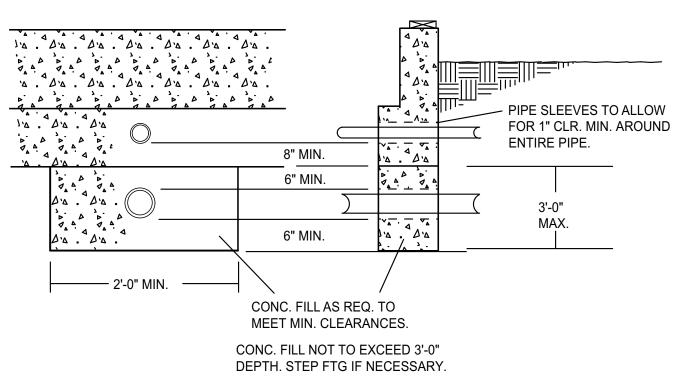
NOT TO SCALE

2'-0" MIN. PIPE TRENCHES PARALLEL TO FOOTINGS

CONC-REINFORCEMENT

NOT TO SCALE



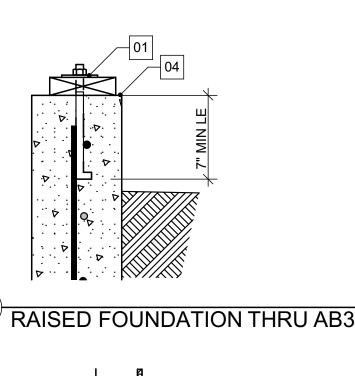


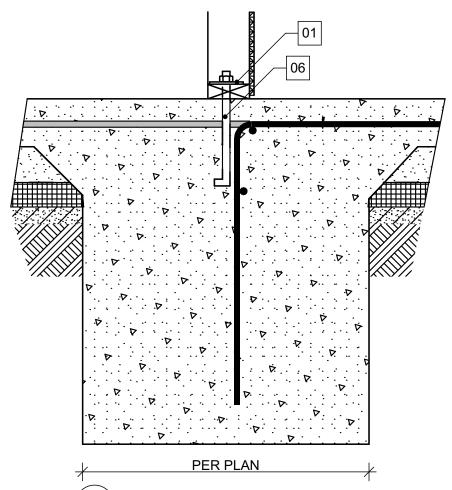
PIPE & TRENCHES TRANSVERSE TO FOOTINGS

GENERAL NOTES-

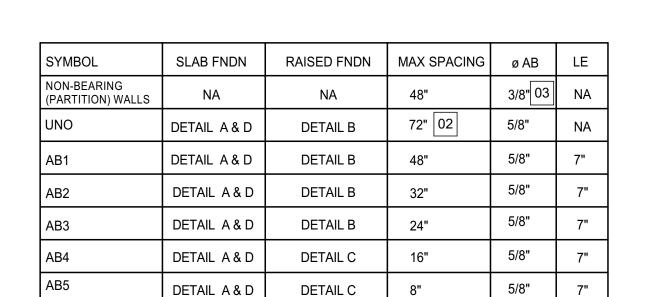
DEEPEN FOOTING IF PIPE DEPTH IS FIXED. BACKFILL & RECOMPACT TRENCHES PER SPECIFICATIONS. EXTERIOR SOG FOOTING THRU AB3 SIMPSON PAB OR — EQUIVALENT RECOMMENDED

RAISED FOUNDATION > AB3





INTERIOR SOG FOOTING



GENERAL NOTES -

- 51 UNO, ANCHOR BOLTS, WASHERS & THREADED RODS TO CONFORM TO ASTM F1554,
- 52 REFER TO 'CONC-EPOXY ANCHOR BOLT' DETAIL FOR ANCOR BOLT RETROFIT
- FINGER TIGHTEN ANCHOR BOLT NUT, PLUS 1/2 TURN
- SEE 'FRMNG-OVER ANCHOR BOLT' DETAIL WHEN STUD FALLS ON ANCHOR USE PRESSURE TREATED LUMBER WHERE IN CONTACT WITH CONCRETE
- PROVIDE A MINIMUM OF 2 ANCHOR BOLTS OR FASTENERS PER PLATE
- 1/2" MAX FACE OF SHEAR WALL PLYWOOD TO ANCHOR BOLT WASHER EDGE NAILS INTO TREATED LUMBER TO BE RATED FOR USE (ASTM A153, CLASS D
- 59 WASHER IN CONTACT WITH TREATED LUMBER TO BE GALVANIZED & RATED FOR USE

KEYNOTES -

- ANCHOR BOLT WASHERS TO BE MIN 3"X3"X0.229". EDGE OF WASHER TO BE WITHIN 0.5" OF SHEAR WALL PLYWOOD. SLOTTED WASHER WITH ADDITION OF CUT WASHER RECOMMENDED TO EASE INSTALLATION
- 48" OC MIN FOR STRUCTURES > 2 STORIES
- ALTERNATE ANCHORAGE FOR NON-BEARING WALL: Ø 0.145" POWDER DRIVEN PINS W/MIN 1 1/4" PENETRATION INTO CONCRETE. SPACE POWDER DRIVEN ANCHORS AT 32" OC, AND A MAXIMUM OF 9" FROM ENDS. USE LOW VELOCITY DN FASTENERS BY HILTI (ICC ESR-1663), OR 1524-SDP FASTENERS BY RAMSET (ICC ESR-2690), OR OTHER APPROVED EQUAL (ICC REPORTS ARE REQUIRED)
- OFFSET SILL PLATE FROM EDGE OF FOUNDATION TO ALLOW FOR WALL SHEATHING CHECK 'CONC-REINFORCEMENT' MIN CLEARANCE REQUIREMENTS FOR BOLTS > 1" ø EXTEND ANCHOR BOLTS AS NEEDED TO OBSERVE MINIMUM EMBEDMENT DEPTHS IF 2-PART POUR



design services, II

1825 STATE STREET STE 102

E: INFO@WINDWARDENG.COM

SANTA BARBARA, CA 93109

SANTA BARBARA, CA 93109

G-001 GENERAL AND SITE PLAN

FOUNDATION/ 1ST STORY

SHEET INDEX

G-002 ENERGY ANALYSIS

G-003 ENERGY ANALYSIS

G-004 GREEN CODE

A-601 SCHEDULES

S-101 FRAMING PLAN

S-501 CONCRETE DETAILS

S-502 CONCRETE DETAILS

S-503 FRAMING DETAILS

S-504 FRAMING DETAILS

S-505 FRAMING DETAILS

P-101 PLUMBING PLAN

M-101 MECH PLAN

S-506 SW & SHEATHING DETAILS

S-001 GENERAL

G-005 GENERAL NOTES A-101 PLAN ELEV SECT

SANTA BARBARA, CA 93101

T: 805.845.6601

PROJECT

221 LA PLATA

CLIENT

221 LA PLATA

DAVID MARCHETTI

MARCHETTI ADU

moving forward

DATES 1/3/2020

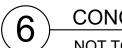
03/03/2020 (E) FENCE SUBMITTA 03/03/2020 DART RESUBMITTAL 03/18/2020 RESUBMITTAL

SCALE AS NOTED CREATED BY: WDS

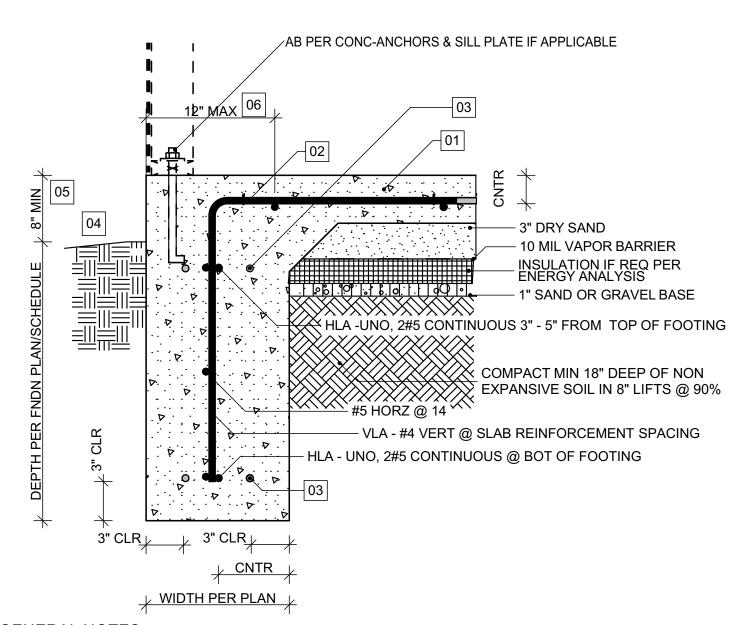
SHEET

CONCRETE DETAILS

CONC-PIPES & TRENCHES @ FNDN 1:1



CONC-ANCHORS @ SILL PLATE



GENERAL NOTES -

- 51 8" MIN CLR BETWEEN GRADE AND UNTREATED LUMBER OR PLYWOOD
- 52 SLOPE AT BOTTOM OF FOOTING NOT TO EXCEED 10%
- BOTTOM OF FOOTING EXCAVATIONS TO BE COMPACTED AT ≥ 90% RELATIVE COMPACTION 54 PROVIDE MIN 6" LAPS @ VAPOR BARRIER BREAKS

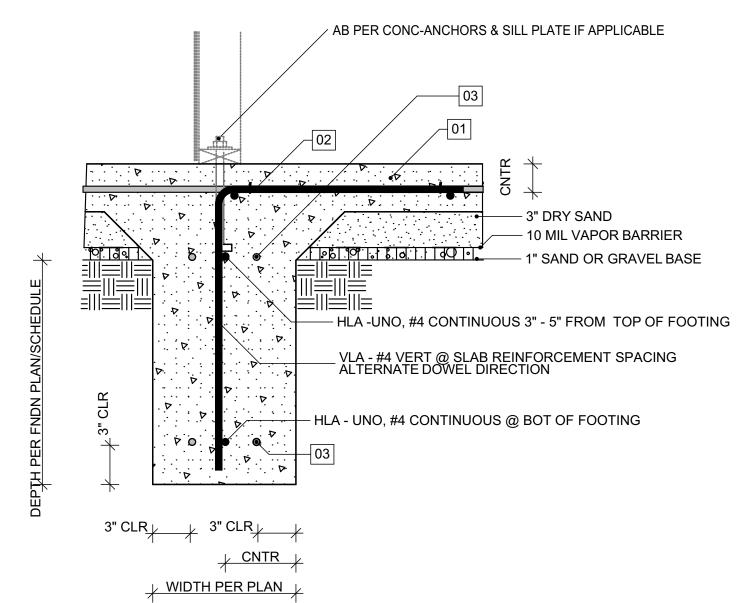
KEYNOTES -

- 01 CONCRETE SLAB DEPTH & REINFORCEMENT PER PLAN. DISTANCE BETWEEN SLAB CONTROL JOINTS NOT TO EXCEED 30 TIMES THE SLAB THICKNESS. AS MUCH AS IS PRACTICAL, THE AREA DEFINED BY CONTROL
- JOINTS SHOULD BE SQUARE. DEPTH OF CONTROL JOINTS TO BE 1/4 THE DEPTH OF THE SLAB MIN STEEL LAP & RADIUS REQUIREMENTS PER CONC-REINFORCEMENT. LAP DOWEL TO SLAB REINFORCEMENT STEEL(MIN LENGTH PER TYPICAL REINFORCEMENT 'LAP' REQUIREMENTS)
- ADDITIONAL LONGITUDINAL STEEL (HLA), IF SPECIFIED PER PLAN, TO BE EVENLY DISTRIBUTED AT TOP & BOTTOM OF FOOTING. 5% MIN SLOPE OF GRADE FOR AT LEAST 10-FT AWAY FROM FOUNDATION. 2% FOR IMPERVIOUS SURFACES
- WHERE MIN 8" CLR BETWEEN WOOD FRAMING AND SOIL CANNOT BE MET, TREAT BOTTOM 12" OF WOOD (PLYWOOD, STUDS, BLOCKING, ETC.) WITH COPPER NAPTHENATE OR SIMILAR WOOD PRESERVATIVE
- 12" MAX FROM OUTSIDE EDGE TO 1ST RUN OF SLAB REINFORCEMENT



CONC-SOG FOUNDATION > 24" DP

NOT TO SCALE



GENERAL NOTES -

- 51 8" MIN CLR BETWEEN GRADE AND UNTREATED LUMBER OR PLYWOOD
- SLOPE AT BOTTOM OF FOOTING NOT TO EXCEED 10%
- 53 BOTTOM OF FOOTING EXCAVATIONS TO BE COMPACTED AT ≥ 90% RELATIVE COMPACTION

54 PROVIDE MIN 6" LAPS @ VAPOR BARRIER BREAKS

KEYNOTES -

- 01 CONCRETE SLAB DEPTH & REINFORCEMENT PER PLAN. DISTANCE BETWEEN SLAB CONTROL JOINTS NOT TO EXCEED 30 TIMES THE SLAB THICKNESS. AS MUCH AS IS PRACTICAL, THE AREA DEFINED BY CONTROL
- JOINTS SHOULD BE SQUARE. DEPTH OF CONTROL JOINTS TO BE 1/4 THE DEPTH OF THE SLAB MIN STEEL LAP & RADIUS REQUIREMENTS PER CONC-REINFORCEMENT. LAP DOWEL TO SLAB
- REINFORCEMENT STEEL(MIN LENGTH PER TYPICAL REINFORCEMENT 'LAP' REQUIREMENTS) ADDITIONAL LONGITUDINAL STEEL (HLA), IF SPECIFIED PER PLAN, TO BE EVENLY DISTRIBUTED AT TOP &
- BOTTOM OF FOOTING. 5% MIN SLOPE OF GRADE FOR AT LEAST 10-FT AWAY FROM FOUNDATION. 2% FOR IMPERVIOUS SURFACES
- WHERE MIN 8" CLR BETWEEN WOOD FRAMING AND SOIL CANNOT BE MET, TREAT BOTTOM 12" OF WOOD (PLYWOOD, STUDS, BLOCKING, ETC.) WITH COPPER NAPTHENATE OR SIMILAR WOOD PRESERVATIVE



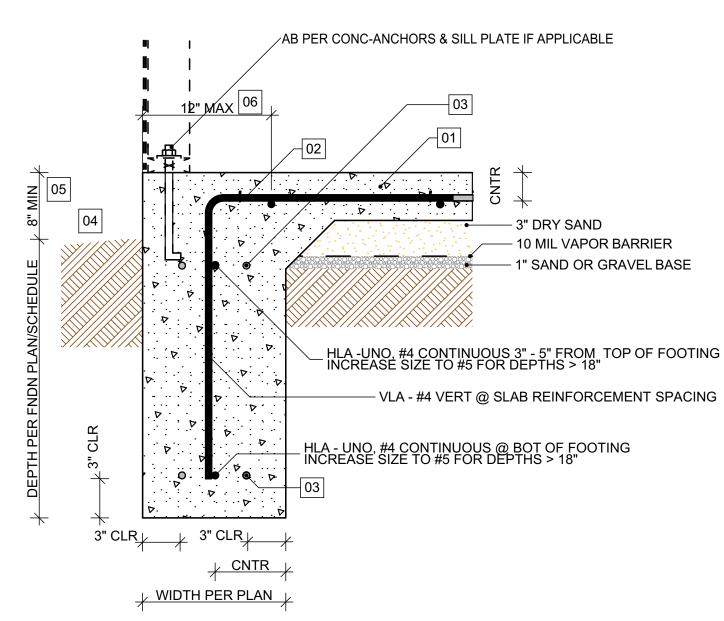
CONC-SOG @ INTERIOR FTNG

SLAB ON GRADE - PLAN VIEW

PER FNDN SCHED

SLAB ON GRADE - SSTB ANCHOR

NOT TO SCALE



GENERAL NOTES -

- 8" MIN CLR BETWEEN GRADE AND UNTREATED LUMBER OR PLYWOOD
- SLOPE AT BOTTOM OF FOOTING NOT TO EXCEED 10%
- BOTTOM OF FOOTING EXCAVATIONS TO BE COMPACTED AT ≥ 90% RELATIVE COMPACTION

54 PROVIDE MIN 6" LAPS @ VAPOR BARRIER BREAKS

KEYNOTES -

- CONCRETE SLAB DEPTH & REINFORCEMENT PER PLAN. DISTANCE BETWEEN SLAB CONTROL JOINTS NOT TO EXCEED 30 TIMES THE SLAB THICKNESS. AS MUCH AS IS PRACTICAL, THE AREA DEFINED BY CONTROL
- JOINTS SHOULD BE SQUARE. DEPTH OF CONTROL JOINTS TO BE 1/4 THE DEPTH OF THE SLAB MIN STEEL LAP & RADIUS REQUIREMENTS PER CONC-REINFORCEMENT. LAP DOWEL TO SLAB
- REINFORCEMENT STEEL(MIN LENGTH PER TYPICAL REINFORCEMENT 'LAP' REQUIREMENTS) ADDITIONAL LONGITUDINAL STEEL (HLA), IF SPECIFIED PER PLAN, TO BE EVENLY DISTRIBUTED AT TOP &
- BOTTOM OF FOOTING. 5% MIN SLOPE OF GRADE FOR AT LEAST 10-FT AWAY FROM FOUNDATION. 2% FOR IMPERVIOUS SURFACES
- WHERE MIN 8" CLR BETWEEN WOOD FRAMING AND SOIL CANNOT BE MET, TREAT BOTTOM 12" OF WOOD
 - (PLYWOOD, STUDS, BLOCKING, ETC.) WITH COPPER NAPTHENATE OR SIMILAR WOOD PRESERVATIVE 12" MAX FROM OUTSIDE EDGE TO 1ST RUN OF SLAB REINFORCEMENT



EDGE_{//}

EDGE__

02

CONC-SOG FOUNDATION TO 24" DP

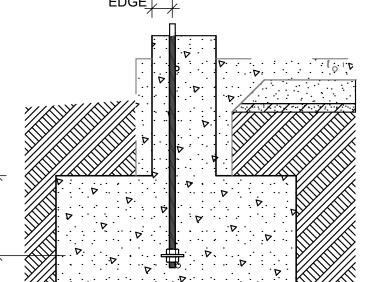
GENERAL NOTES -

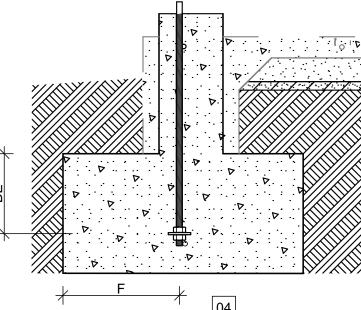
- G01 REVIEW HOLDOWN INSTALLATION INSTRUCTIONS FOR ADDITIONAL
- DETAILS G02 FOR RETROFIT CONDITIONS, REFER TO APPLICABLE FOOTING
- DETAIL FOR ADDITIONAL INFORMATION G03 HOLDOWN ANCHORS TO BE TIED IN-PLACE PRIOR TO FOUNDATION

KEYNOTES -CNW COUPLER NUT

INSPECTION AND POUR

- MIN 1 3/4" BETWEEN ANCHOR BOLT CENTER & FOUNDATION EDGE ROTATE SSTB ANCHOR BOLT A MIN OF 45° FROM PARALLEL CONDITION WITH STEM WALL
- 2F MIN IN BOTH DIRECTIONS, CENTERED @ ANCHOR BOLT 1 1/2" 'POP-OUT' REQUIRED AT EXT SOG SSTB FOOTING
- LOCATIONS. EXTEND A MIN LENGTH OF LE IN EACH DIRECTION. CENTER @ ANCHOR BOLT 06 UNO PER FOUNDATION PLAN, 1 - #4 3 TO 5" FROM TOP OF STEM





RAISED FOUNDATION - SSTB ANCHOR

RAISED FOUNDATION - PLAN VIEW

RAISED OR SLAB ON GRADE FNDN W/ALL-THREAD ANCHOR

HOLDOWN	MIN POST DEPTH	ANCHOR BOLT @ SOG	ANCHOR BOLT @ RAISED FNDN	EDGE MIN	CE MIN	DE MIN @ SOG DETAIL 'C'	DE MIN @ RAISED FNDN	F (NOTE 1)
HDU2-SDS2.5	3"	SSTB20	SSTB24	1 3/4"	5"	12 5/8"	12 5/8"	NA
HDU4-SDS2.5	3"	SB 5/8 X 24	SB 5/8 X 24	1 3/4"	5"	16 5/8"	6"	NA
HDU5-SDS2.5	3"	SB 5/8 X 24	SB 5/8 X 24	1 3/4"	6"	20 5/8"	6"	NA
HDU8-SDS2.5	4.5"	SSTB28	SSTB28	1 3/4"	6"	24 7/8"	6"	NA
HDU11-SDS2.5	7.25"	PAB8	PAB8	2 1/2"	12"	11"	11"	16.5"
HDU14-SDS2.5	7.25" OR 6X6	PAB8	PAB8	2 1/2"	11"	11"	11"	16.5"
NOTES - 1 WHERE DE	TAIL 'E' APPLIES							

design services, II

1825 STATE STREET STE 102 SANTA BARBARA, CA 93101

E: INFO@WINDWARDENG.COM

SANTA BARBARA, CA 93109

SANTA BARBARA, CA 93109

G-001 GENERAL AND SITE PLAN

SHEET INDEX

G-002 ENERGY ANALYSIS

G-003 ENERGY ANALYSIS

G-004 GREEN CODE G-005 GENERAL NOTES

A-101 PLAN ELEV SECT

S-101 FOUNDATION/1ST STORY FRAMING PLAN

S-501 CONCRETE DETAILS

S-502 CONCRETE DETAILS

S-503 FRAMING DETAILS

S-504 FRAMING DETAILS

S-505 FRAMING DETAILS

P-101 PLUMBING PLAN

M-101 MECH PLAN

S-506 SW & SHEATHING DETAILS

A-601 SCHEDULES

S-001 GENERAL

T: 805.845.6601

PROJECT

MARCHETTI ADU

221 LA PLATA

CLIENT

221 LA PLATA

DAVID MARCHETTI

moving forward

DATES

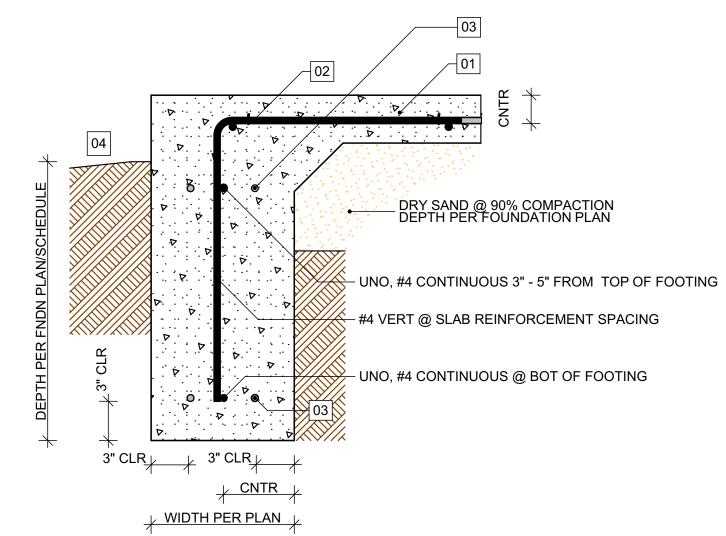
1/3/2020 03/03/2020 03/03/2020

(E) FENCE SUBMITTA DART RESUBMITTAL 03/18/2020 RESUBMITTAL

SCALE AS NOTED CREATED BY: WDS

SHEET

CONCRETE DETAILS



GENERAL NOTES -

51 SLOPE AT BOTTOM OF FOOTING NOT TO EXCEED 10%

52 BOTTOM OF FOOTING EXCAVATIONS TO BE COMPACTED AT ≥ 90% RELATIVE COMPACTION

KEYNOTES -

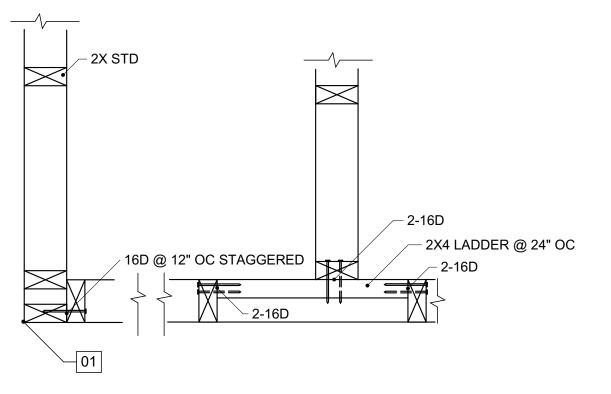
01 CONCRETE SLAB DEPTH & REINFORCEMENT PER PLAN. DISTANCE BETWEEN SLAB CONTROL JOINTS NOT TO EXCEED 30 TIMES THE SLAB THICKNESS. AS MUCH AS IS PRACTICAL, THE AREA DEFINED BY CONTROL

JOINTS SHOULD BE SQUARE. DEPTH OF CONTROL JOINTS TO BE 1/4 THE DEPTH OF THE SLAB 02 MIN STEEL LAP & RADIUS REQUIREMENTS PER CONC-REINFORCEMENT 03 ADDITIONAL LONGITUDINAL STEEL, IF SPECIFIED PER PLAN, TO BE EVENLY DISTRIBUTED AT TOP & BOTTOM

OF FOOTING. 04 5% MIN SLOPE OF GRADE FOR AT LEAST 10-FT AWAY FROM FOUNDATION. 2% FOR IMPERVIOUS SURFACES

CONC-SOG EXTERIOR SAND BASE NOT TO SCALE





∠ CJ OR RR PER PLAN

2X BLK

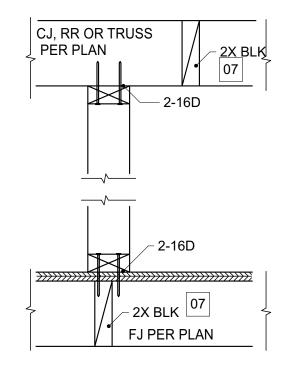
04

- 2X <u>BLK</u>

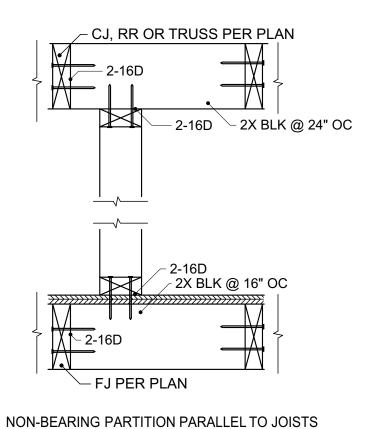
BEARING WALL BELOW

BEARING PARTITION PERPENDICULAR TO JOISTS

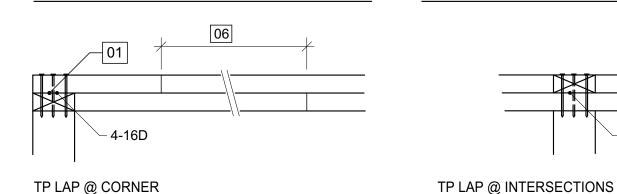
FJ OR CJ PER PLAN

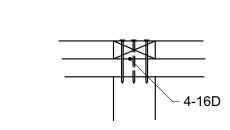


NON-BEARING PARTITION PERP TO JOISTS



STUD WALL CONNECTIONS AT CORNERS & INTERSECTIONS





GENERAL NOTES

UNLESS NOTED OTHERWISE, ALL CONNECTIONS PER 'FRMNG-NAILING SCHEDULE' & 'FRMNG-SHEAR WALL &

SHEATHING' AS APPLICABLE UNO, WALL STUDS TO BE SPACED AT 16" OC

BALLOON FRAME GABLE WALLS AT VAULTED AREAS BLK BENEATH ALL POSTS. ALLOW FOR "FULL" BEARING OF POST BASE

KEY NOTES -

PROVIDE PLATE OVERLAP AT CORNERS & INTERSECTIONS, OR LSTA24 ACROSS BREAK IF LAP NOT POSSIBLE

2X BLOCKING @ 16" OC BETWEEN JOISTS BLOCK PARALLEL TO JOISTS OVER FULL LENGTH OF WALL

MIN 3" LAP WHERE PARALLEL JOISTS OCCUR OVER SUPPORT

MAX. OFFSET BETWEEN BEARING PARTITION AND SUPPORT TO BE NO GREATER THAN THE JOIST DEPTH, OR PROVIDE 2 ROWS OF BLK (1 @ UPPER PARTITION & 1 @ LOWER)

BREAKS IN UPPER & LOWER TOP PLATES TO BE OFFSET BY AT LEAST 48". STRAP ACROSS BREAKS WITH LSTA18

WHERE MIN OFFSET NOT POSSIBLE. DBL TP CONNECTION PER 'FRMNG-NAILING SCHEDULE' BLK ALL JOISTS @ 8-FT OC WHERE JOIST HEIGHT TO WIDTH RATIOS EXCEED 6

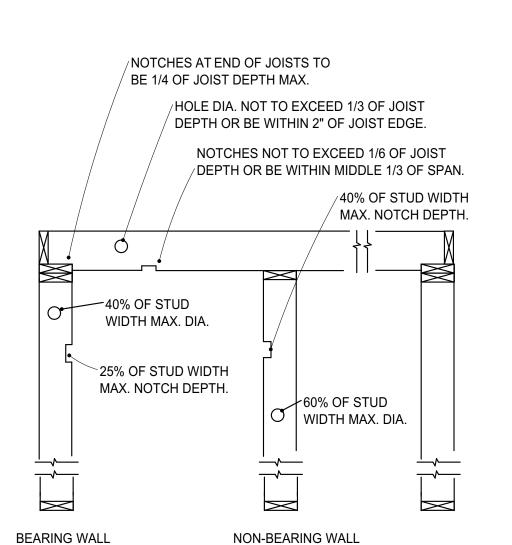
- FJ OR CJ PER PLAN

SEARING PARTITION PARALLEL TO JOISTS



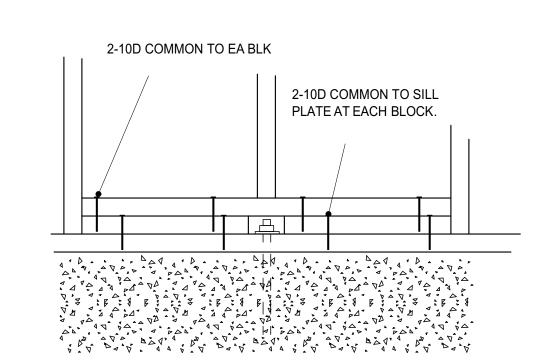
16D @ 12" OC STAGGERED

— DOUBLE FJ



NOTES:

WHERE INSTALLATION OF PIPES REQS. CUTTING OF SOLES OR PLATES, A METAL STRAP(S), MIN. 16 GAUGE, MIN. 1-1/2" WIDE, SHALL SPAN THE OPENING. A MIN. OF 6, 16d NAILS SHALL BE USED TO CONNECT STRAP TO EACH PLATE.



01 FOR USE WHERE STUDS FALL OVER ANCHOR BOLTS.

|CATEGORY |CONNECTION NAILING FOUNDATION FLOOR JOIST TO SILL PLATE OR GIRDER, TOENAIL (3) - 8D FOUNDATION BLOCKING OR RIM JOIST TO FLOOR JOIST, END NAIL (2) - 16D FOUNDATION BLOCKING OR RIM JOIST TO SILL PLATE, TOENAIL 8D @ 6" OC BLOCKING OR RIM JOIST TO SILL PLATE AT SHEAR WALL FOUNDATION PER DETAIL 'FRMNG-SHEAR WALL & SHEATHING' FOUNDATION FLOOR OPENINGS PER DETAIL 'FRMNG-OPENING ROOF CLNG FLOOR' FOUNDATION SUB-FLOOR SHEATHING PER DETAIL 'FRMNG-SHEAR WALL & SHEATHING' WALL CORNERS AND INTERSECTIONS PER DETAIL 'FRMNG-WALL CONNECTIONS' WALL - BP BOTTOM PLATE TO JOIST OR BLOCKING, FACE NAIL 16D @ 8" OC WALL - OPEN DOOR & WINDOW OPENINGS PER DETAIL 'FRMNG-OPENING HEADERS' WALL - PLY WALL SHEATHING PER DETAIL 'FRMNG-SHEAR WALL & SHEATHING' WALL - POST POST TO BP, TP, OR SP IF HARDWARE NOT SPECIFIED (4) - 16D END NAIL OR BLK WHERE NEEDED TO PROVIDE FOR FULL BEARING 2-LTP4 OR WALL - STD STUD TO BOTTOM PLATE OR TOP PLATE(S) (2) - 16D END NAIL OR (4) - 8D TOENAIL (2) - 20D END NAIL OR IF 3X BOTTOM PLATE (4) - 8D TOENAIL | WALL - STD DBL | DOUBLE STUDS, FACE NAIL 16D @ 24" OC STAGGERED WALL - SW PER DETAIL WALL SHEAR WALL 'FRMNG-SHEAR WALL & SHEATHING' WALL - TP DOUBLE TOP PLATES, FACE NAIL 16D @ 16" OC STAGGERED PER DETAIL WALL - TP DOUBLE TOP PLATE LAPS & INTERSECTIONS 'FRMNG-WALL CONNECTIONS' CEILING JOIST TO TOP PLATE, TOENAIL CEILING - CJ CEILING - CJ CEILING JOIST LAPS AT PARTITIONS, FACE NAIL (3) - 16D CEILING JOIST TO PARALLEL RAFTER, FACE NAIL (3) - 16D CEILING - CJ CEILING - OPEN | CEILING OPENINGS PER DETAIL 'FRMNG-OPENING ROOF CLNG FLOOR' CEILING - BLK BLOCKING OR RIM JOIST TO CEILING JOIST, END NAIL (2) - 16D CEILING - BLK BLOCKING OR RIM JOIST TO TOP PLATE, TOENAIL 8D @ 6" OC CEILING - BLK BLOCKING OR RIM JOIST TO TOP PLATE AT SHEAR WALL PER DETAIL 'FRMNG-SHEAR WALL & SHEATHING' ROOF - PLY ROOF SHEATHING PER DETAIL 'FRMNG-SHEAR WALL & SHEATHING' ROOF - OPEN ROOF OPENINGS PER DETAIL 'FRMNG-OPENING ROOF CLNG FLOOR' ROOF - RR RAFTER TO TOP PLATE OR BEAM, TOENAIL (3) - 8D ROOF - BLK RAFTER TO BLOCKING, END NAIL (2) - 16D 8D @ 6" OC ROOF - BLK BLOCKING TO TOP PLATE OR BEAM, TOENAIL ROOF - BLK BLOCKING AT SHEAR WALL PER DETAIL 'FRMNG-SHEAR WALL & SHEATHING' ROOF - HR RAFTER TO HIP RAFTER, END NAIL (3) - 16D

NAILING SCHEDULE

NOTES -

ROOF - RB

- HALSTEEL, TRUESPEC (COLOR-CODED) NAILS OR EQUIVALENT TO BE USED
- NAIL DIAMETERS DEFINED AS: 6D (0.099), 8D (0.131), 10D (0.148), 16D (0.162), 20D (0.192)
- MINIMUM FACE AND END NAIL PENETRATION INTO FRAMING TO BE 1-1/2"

RAFTER TO RIDGE BOARD, END NAIL

MINIMUM TOENAIL PENETRATIONS INTO FRAMING TO BE 1-1/8", INSTALLED @ A 30° ANGLE FROM VERTICAL, & STARTED @ APPROXIMATELY 1/3 THE LENGTH OF THE NAIL FROM THE MEMBER EDGE. UNO, **TOENAILS DIAMETER ≤ 8D (0.131)**

(3) - 16D

- MINIMUM JOIST BEARING TO BE 1-1/2". MINIMUM GIRDER BEARING TO MATCH WIDTH OF LUMBER
- NAILING SCHEDULE PROVIDES MINIMUM NAILING REQUIREMENTS; MORE STRINGENT

REQUIREMENTS INDICATED WITHIN THESE DOCUMENTS SUPERSEDE

FN - FRAMING NOTES

1.1 ALL MATERIALS AND EQUIPMENT TO BE INSTALLED PER THE APPLICABLE PROVISIONS OF THESE DOCUMENTS AND THE MANUFACTURER'S INSTALLATION INSTRUCTIONS, UNO

1.2 REFER TO DETAIL SHEETS FOR TYPICAL CONSTRUCTION REQUIREMENTS. DETAIL DRAWING LOCATIONS CAN BE FOUND @ S001

UNO, LUMBER TO BE DOUGLAS FIR-LARCH LUMBER GRADING AS FOLLOWS, UNO: 2X4: STD OR BTR

2X6 AND LARGER: #2 OR BTR 4X AND LARGER: #1

TIMBERSTRAND (LSL): iLEVEL LSL 1.55E MICROLLAM (LVL): iLEVEL LVL 1.9E

PARALLAM (PSL): iLEVEL PSL 2.0E

PLYWOOD & OSB: APA SHEATHING RATED STRUCTURAL 1, EXPOSURE 1 LUMBER MOISTURE CONTENT TO BE LESS THAN 19% AT TIME OF INSTALLATION

MEMBERS EXPOSED TO VIEW: SELECT FOR BEST APPEARANCE AVAILABLE IN GRADE SPECIFIED. REMOVE ALL STAINS, STAMPS, OR GOUGES PRIOR TO INSTALLATION

NAILING

REFER TO FRMNG-NAILING SCHEDULE DETAIL FOR MIN NAILING REQUIREMENTS

HALSTEEL, TRUESPEC (COLOR-CODED) NAILS OR EQUIVALENT TO BE USED 3.3 NAIL DIAMETERS DEFINED AS: 6D (0.099), 8D (0.131), 10D (0.148), 16D (0.162), 20D (0.192)

3.4 NAILS INTO TREATED LUMBER TO BE RATED FOR USE (ASTM A153, CLASS D) 3.5 UNO, TOENAILING, @ LOCATIONS ALLOWED BY 'FRMNG-NAILING SCHEDULE' NOT TO EXCEED 8D NAIL

CONNECTORS

4.1 ALL TIMBER CONNECTORS ARE TO BE GALVANIZED, OR PAINTED WITH CORROSION RESISTANT

POLYMER PAINT 4.2 UNO, BOLTED CONNECTIONS FOR WOOS TO BE WITH ASTM A307 TYPE BOLTS

UNO, DRILL HOLES IN WOOD FOR BOLTS 1/16" LARGER THAN THE NOMINAL SIZE OF THE BOLT PROVIDE ALL BOLTS WITH STANDARD CUT WASHERS UNDER HEADS AND/OR NUTS WHERE IN CONTACT

WITH WOOD.

4.5 ALL SHEET METAL FRAMING CONNECTORS SHOWN ON THE PLANS ARE TO BE STRONG TIE CONNECTORS AS MANUFACTURED BY THE SIMPSON CO. OR EQUAL. UNO, ALL CONNECTOR HOLES ARE

4.6 NAILS INTO TREATED LUMBER TO BE RATED FOR USE (ASTM A153, CLASS D)

LUMBER @ CONCRETE OR MASONRY

USE DOUGLAS FIR PRESSURE IMPREGNATED LUMBER WITH AN APPROVED PRESERVATIVE FOR SILL

PLATES RESTING ON OR AGAINST CONCRETE OR MASONRY

TREAT BOTTOM 6 INCHES OF POSTS THAT BEAR ON CONCRETE OR CONCRETE BLOCK WITH A SAFE PRESERVATIVE THAT DOES NOT DISCOLOR THE WOOD WHERE STUD WALL TERMINATES AT A CONCRETE OR MASONRY WALL, FASTEN THE LAST STUD TO THE

WALL WITH Ø 3/8" ANCHOR AT THE TOP, BOTTOM, AND MID HEIGHT OF THE STUD. MAXIMUM VERTICAL SPACING OF ANCHORS SHALL BE 6' 0". ANCHORS CAN BE POURED IN PLACE OR RETROFITTED W/4" EMBEDMENT. LUMBER TO BE TREATED

5.4 NAILS INTO TREATED LUMBER TO BE RATED FOR USE (ASTM A153, CLASS D)

SOLID BLOCK ALL 2X JOISTS AND RAFTERS AT POINTS OF BEARING. WHERE THE JOIST OR RAFTER SPAN EXCEEDS EIGHT (8) FEET, PROVIDE WOOD CROSS BRIDGING, NOT LESS THAN 2 INCHES BY 3 INCHES NOMINAL, METAL CROSS BRIDGING OF EQUAL STRENGTH, OR SOLID BLOCKING BETWEEN JOISTS . CROSS BRIDGING OR BLOCKING MAY BE OMITTED FOR ROOF AND CEILING JOISTS EIGHT INCHES AND LESS IN DEPTH, UNO

GLULAM BEAM

PROVIDE GLUED LAMINATED BEAMS OF THE SIZE AND CAMBER SHOWN ON THE PLANS. USE A FABRICATOR THAT IS A MEMBER OF THE AITC. FURNISH THE OWNER WITH AN AITC CERTIFICATE UPON COMPLETION OF FABRICATION. ALL LUMBER IS TO BE DOUGLAS FIR. USE LAMINATIONS RESULTING FROM USAGE OF 2" NOMINAL THICK MATERIAL. LAMINATIONS TO CONFORM TO COMBINATION 24F V8. APPEARANCE TO BE INDUSTRIAL GRADE. USE EXTERIOR TYPE GLUE. FABRICATION OF ALL GLUED LAMINATED BEAMS TO CONFORM TO VOLUNTARY PRODUCT STANDARD PS 56 73

ENGINEERED LUMBER

PARALLAM (PSL), LAMINATED STRAND LUMBER (LSL), AND LAMINATED VENEER LUMBER (LVL) 8.1 DESIGNATIONS ON THE DRAWINGS ARE THOSE OF ILEVEL WEYERHAEUSER. OTHER MANUFACTURERS' JOISTS WHICH ARE EQUAL TO THOSE OF ILEVEL WEYERHAEUSER ARE ACCEPTABLE WITH THE APPROVAL OF THE STRUCTURAL ENGINEER

MULTIPLE BUILT-UP MICROLLAM (LVL) SECTIONS SHALL BE NAILED OR BOLTED TOGETHER PER

SPECIFICATIONS PROVIDED BY STANDARD ILEVEL WEYERHAEUSER.

ALL PRODUCTS SHALL CONFORM WITH NATIONAL EVALUATION SERVICE INC. (NES) REPORT NO. NER-125 AND NER-292

8.4 TJI JOISTS TO BE INSTALLED PER MANUFACTURER'S INSTRUCTIONS

ROOF FRAMING & TRUSSES

INSTALL ROOF TRUSSES PER MANUFACTURER'S INSTALLATION INSTRUCTIONS

FN-FRAMING NOTES

NOT TO SCALE

RENEWAL: 3/3172

moving forward

1825 STATE STREET STE 102

E: INFO@WINDWARDENG.COM

SANTA BARBARA, CA 93109

SANTA BARBARA, CA 93109

G-001 GENERAL AND SITE PLAN

SHEET INDEX

G-002 ENERGY ANALYSIS G-003 ENERGY ANALYSIS

G-004 GREEN CODE

G-005 GENERAL NOTES

A-101 PLAN ELEV SECT

S-101 FOUNDATION/ 1ST STORY

S-501 CONCRETE DETAILS

S-502 CONCRETE DETAILS

S-503 FRAMING DETAILS

S-504 FRAMING DETAILS

S-505 FRAMING DETAILS

P-101 PLUMBING PLAN

M-101 MECH PLAN

S-506 SW & SHEATHING DETAILS

A-601 SCHEDULES

SANTA BARBARA, CA 93101

T: 805.845.6601

PROJECT MARCHETTI ADU 221 LA PLATA

CLIENT

221 LA PLATA

DAVID MARCHETTI

4/9/2020

DATES 1/3/2020

03/03/2020 (E) FENCE SUBMITTA 03/03/2020 DART RESUBMITTAL 03/18/2020 RESUBMITTAL

SCALE AS NOTED CREATED BY: WDS

SHEET

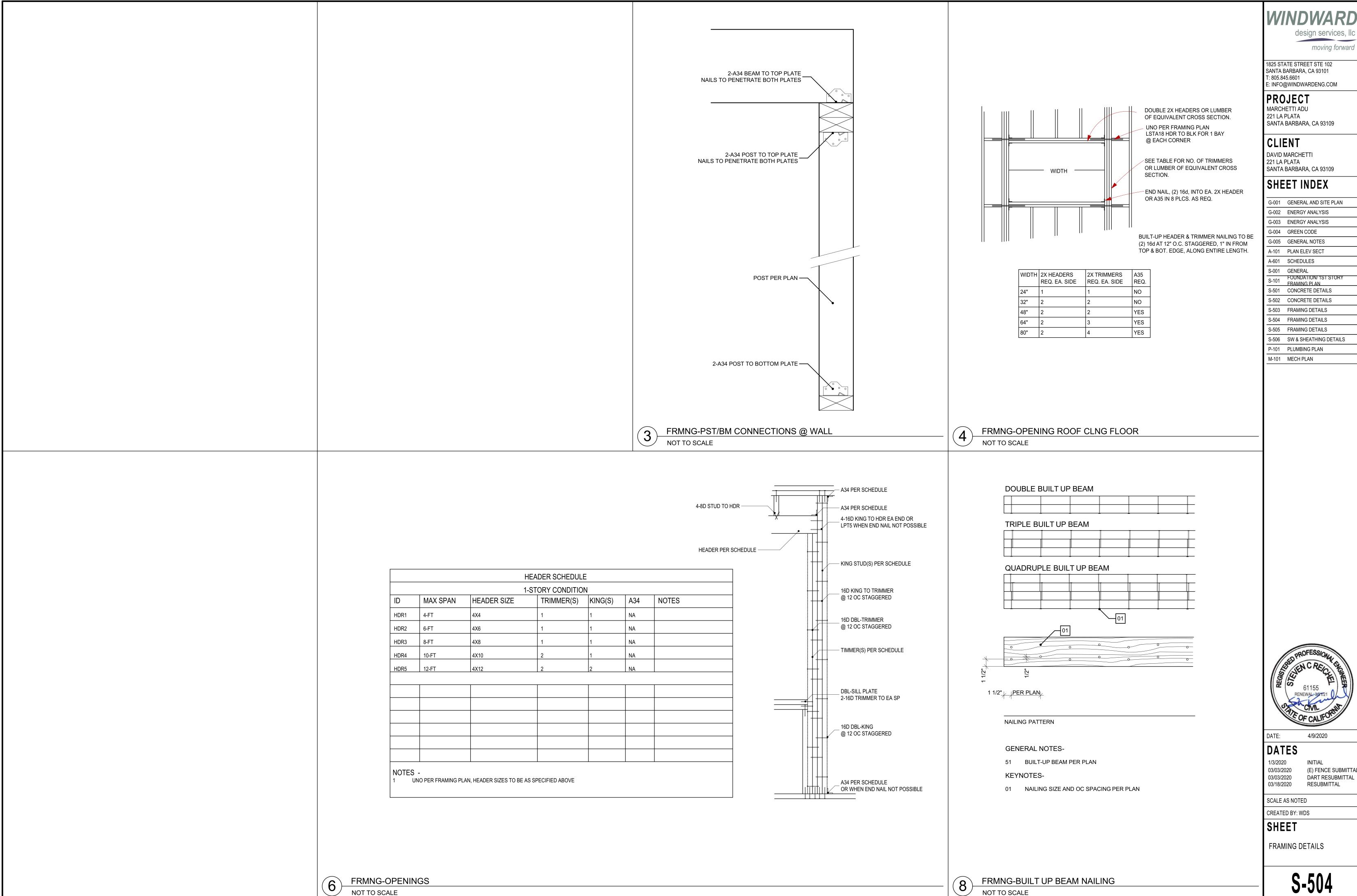
FRAMING DETAILS

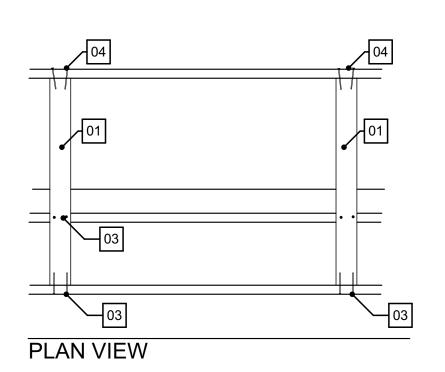
FRMNG-CUTTING & NOTCHING NOT TO SCALE

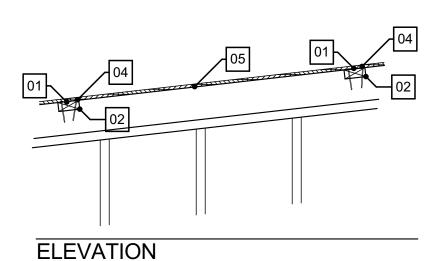
FRMNG-OVER ANCHOR BOLT NOT TO SCALE

NOT TO SCALE

FRMNG-NAILING SCHEDULE







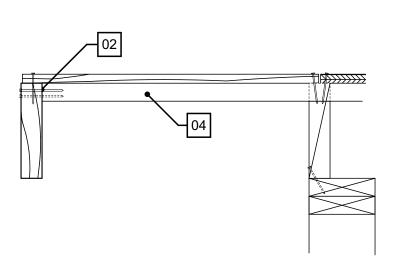
KEYNOTES -

- 01 OUTLOOKERS SIZE & SPACING PER FRAMING PLAN 02 NOTCH RIM JOIST TO ALLOW FOR INSTALLATION
- 03 2-16D (GALVANIZED CASEMENT NAILS) FASCIA TO OUTLOOKER
- 04 2-16D RR TO OUTLOOKER
- 05 ROOF PITCH & DETAILS PER ARCHITECTURAL PLANS

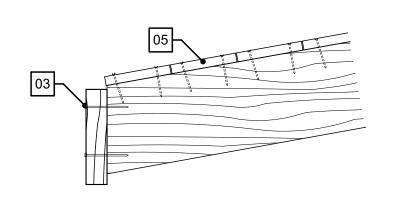




TYPICAL CORNER CONDITION



TYPICAL GABLE CONDITION



TYPICAL EAVE CONDITION

GENERAL NOTES -

51 DRAWING REPRESENTATIVE AND IS INTENDED TO ILLUSTRATE STRUCTURAL CONNECTIONS. ACTUAL FASCIA SIZE & EAVE DETAIL MAY DIFFER. REFER TO ARCHITECTURAL DETAILS

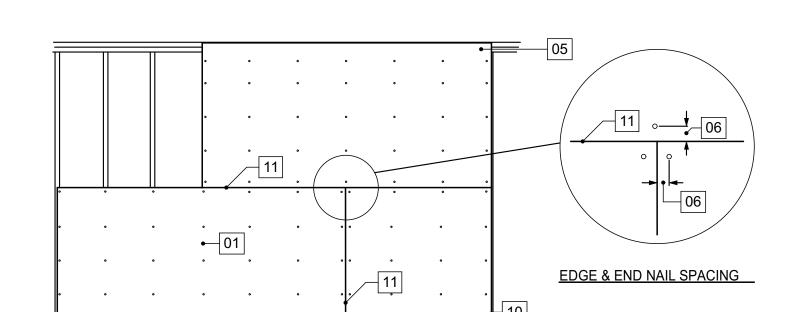
KEYNOTES -

- 2-16D (GALVANIZED CASEMENT NAILS) EA WAY
- 02 3-16D (GALVANIZED CASEMENT NAILS) FASCIA TO OUTLOOKER
- 03 2-16D (GALVANIZED CASEMENT NAILS) FASCIA TO RR 04 OUTLOOKER PER 'FRMNG-OUTLOOKERS'
- 05 ROOF PITCH & STARTER BOARD DETAILS PER ARCHITECTURAL PLANS



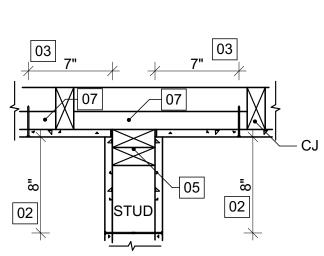
FRMNG-FASCIA

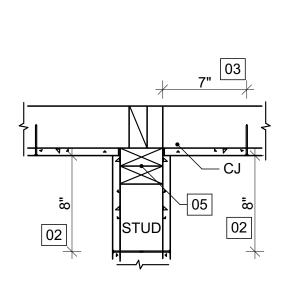
NOT TO SCALE

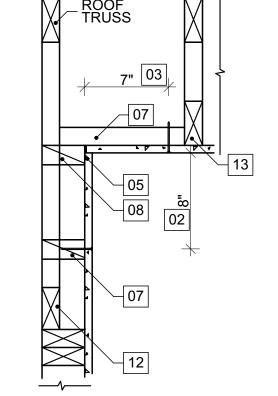


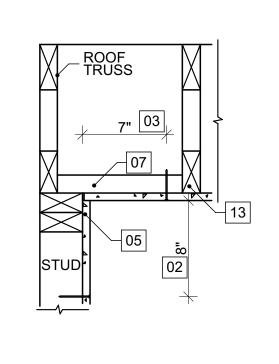
CEILING NAILING @ CORNER

CJ PERPENDICULAR TO WALL









GYPSUM PANEL NAILING

CEILING NAILING @ CORNER

CJ PARALLEL TO WALL

CEILING NAILING @ PARTITION CJ PARALLEL TO WALL

WALL NAILING @ CORNER

CEILING NAILING @ PARTITION CJ PERPENDICULAR TO WALL

WALL NAILING @ PARTITION

CEILING NAILING @ SCISSOR TRUSS FLAT BOTTOM GABLE TRUSS

GYPSUM

1/2 & 5/8

1/2 & 5/8

1/2 & 5/8

1/2 & 5/8

1/2 & 5/8

GYPSUM PANEL NAILING TABLE

APPLICATION

CEILING

CEILING

WALL

WALL

FASTENER

SCREW

SCREW

SCREW

FRAMING

CEILING NAILING @ SCISSOR TRUSS RAKED BOTTOM GABLE TRUSS

STUD/CJ OC

16 & 24

16 & 24

16 & 24

SPACING

GENERAL NOTES -

- 51 REFER TO GYPSUM ASSOCIATION'S INSTALLATION GUIDE (GA-216-YY) @ WWW.GYPSUM.ORG
- FOR ADDITIONAL INFORMATION 52 FRAMING PER STRUCTURAL PLANS
- 53 FASTENERS NOT TO FRACTURE FACE PAPER 54 7/8" MIN NAIL PENETRATION INTO WOOD
- 55 5/8" MIN SCREW PENETRATION INTO WOOD OR 1/4" THRU METAL
- 56 "STACKED" PANELS SHALL BE LOCATED SO THAT VERTICAL JOINTS DO NOT FALL ON THE SAME
- 57 PANELS SHALL BE LOCATED SO THAT NO JOINT ALIGNS WITH AN OPENING EDGE
- 58 JOINTS ON OPPOSITE SIDES OF PARTITIONS SHALL NOT OCCUR ON THE SAME STUD 59 PANELS SHALL BE APPLIED FIRST TO CEILINGS AND THEN TO WALLS
- 60 12" OC MAX CJ SPACING WHERE 1/2" CEILING GREENBOARD IS TO BE INSTALLED
- 61 1-LAYER OF 5/8" TYPE X MIN REQUIRED @ GARAGE CEILING, TO MEET FIRE SEPARATION REQUIREMENT WHEN, HABITABLE SPACE IS ABOVE & FLOOR/CEILING JOISTS ARE
- MANUFACTURED I-JOISTS 62 REFER TO ARCHITECTURAL PLANS AND GYPSUM ASSOCIATION'S FIRE DESIGN MANUAL (GA-
- 600-YYYY) @ WWW.GYPSUM.ORG FOR FIRE SEPARATION WALL DETAILS
- WHERE **RIGID FURRING CHANNELS** ARE USED WITH WOOD FRAMING, CHANNELS SHALL BE SPACED NOT MORE THAN 24 OC & SHALL BE APPLIED AT RIGHT ANGLES TO WALL & CEILING FRAMING MEMBERS. CHANNELS SHALL BE LOCATED NOT MORE THAN 2 IN FROM THE FLOOR & NOT MORE THAN 6 IN FROM THE WALL/CEILING INTERSECTION. CHANNELS SHALL BE ATTACHED THROUGH ALTERNATING FLANGES TO EACH FRAMING MEMBER WITH EITHER 6D

NAILS, 1 7/8 IN LONG, OR 1 1/4 IN TYPE S OR W DRYWALL SCREWS

KEYNOTES -

- 01 SPACING ALONG STUD OR JOIST PER GYPSUM PANEL NAILING TABLE
- 02 8" TO FIRST ROW OF WALL NAILS, 11" TO 12" FOR SCREWS
- 03 7" TO FIRST ROW OF CEILING NAILS, 11" TO 12" FOR SCREWS 04 DO NOT NAIL UNDERLYING PANEL. HOLD PANEL BACK 1/8" TO ALLOW FOR EXPANSION
- 05 DO NOT NAIL INTO TOP PLATES
- 06 3/8" MIN SPACING FROM FASTENER TO EDGES OR ENDS
- 07 BLOCKING AT REQ SPACING 08 FIRE BLOCK
- 09 ADD STUD OR BLOCKING AT REQ SPACING
- 10 MIN 1/4" CLEARANCE TO FLOOR
- 11 PANELS SHALL BE IN CONTACT WITH EACH OTHER, BUT NOT FORCED 12 GABLE TRUSS LEVEL BOTTOM CHORD
- 13 TRUSS RAKED BOTTOM CHORD



design services, II

1825 STATE STREET STE 102 SANTA BARBARA, CA 93101

E: INFO@WINDWARDENG.COM

SANTA BARBARA, CA 93109

SANTA BARBARA, CA 93109

G-001 GENERAL AND SITE PLAN

S-101 FOUNDATION/ 1ST STORY FRAMING PLAN

S-501 CONCRETE DETAILS S-502 CONCRETE DETAILS

S-503 FRAMING DETAILS

S-504 FRAMING DETAILS S-505 FRAMING DETAILS

P-101 PLUMBING PLAN

M-101 MECH PLAN

S-506 SW & SHEATHING DETAILS

G-002 ENERGY ANALYSIS G-003 ENERGY ANALYSIS

G-004 GREEN CODE G-005 GENERAL NOTES A-101 PLAN ELEV SECT A-601 SCHEDULES S-001 GENERAL

SHEET INDEX

T: 805.845.6601

PROJECT MARCHETTI ADU 221 LA PLATA

CLIENT

DAVID MARCHETTI 221 LA PLATA

moving forward

DATES

1/3/2020 03/03/2020 (E) FENCE SUBMITTA 03/03/2020 DART RESUBMITTAL 03/18/2020 RESUBMITTAL

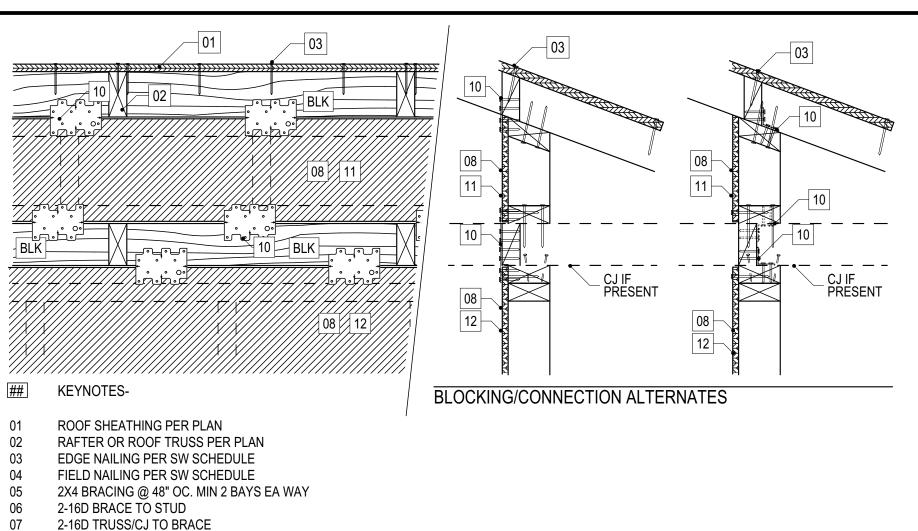
SCALE AS NOTED

CREATED BY: WDS

SHEET

FRAMING DETAILS

GYPSUM PANEL NAILING NOT TO SCALE



`|05| |06|∕

KEY NOTES

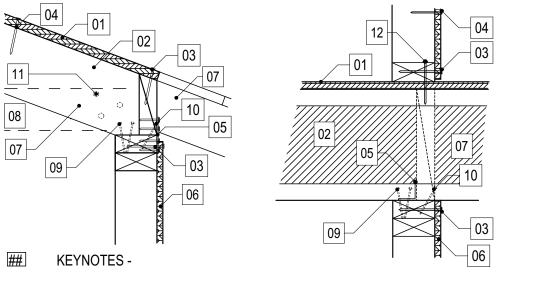
ROOF SHEATHING PER PLAN RAFTER OR ROOF TRUSS PER PLAN

WALL PER SW SCHEDULE

EDGE NAILING PER SW SCHEDULE FIELD NAILING PER SW SCHEDULE 2X BRACING @ 48" OC. MIN 2 BAYS EA WAY 2-16D BRACE TO STUD

2-16D TRUSS/CJ TO BRACE PLYWOOD PER SW SCHEDULE CONTINUOUS DBL-TP CONNECTION PER SW SCHEDULE CRIPPLE WALL BETWEEN CJ & RR PER SW SCHEDULE

B ROOF-INTERIOR SW PARALLEL TO RR OR TRUSS

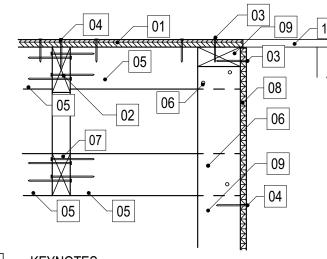


ROOF SHEATHING PER SW SCHEDULE RAFTER OR ROOF TRUSS PER PLAN. CONN TO TP PER 'FRMNG-NAILING SCHEDULE' EDGE NAILING PER SW SCHEDULE FIELD NAILING PER SW SCHEDULE

TOP PLATE TO BLOCK PER SW SCHEDULE PLYWOOD PER SW SCHEDULE ROOF TYPE, PITCH & EAVE PER ARCHITECTURAL PLAN IF CJ PRESENT, CONN TO TP PER 'FRMNG-NAILING SCHEDULE' RR TO PLATE: 3-8D, TOENAIL BLK TO PLATE: 8D @ 6 " OC, TOENAIL JOIST/RR LAPS: 3-16D, FACE NAIL

ROOF-EXTERIOR SHEAR WALL @ EAVE

BP TO JOIST: 16D @ 8" OC, STAGGERED



KEYNOTES

ROOF SHEATHING PER PLAN RAFTER OR ROOF TRUSS PER PLAN EDGE NAILING PER SW SCHEDULE FIELD NAILING PER SW SCHEDULE

2X BRACING @ 48" OC MIN 2 BAYS 2-16D BRACE TO STUD 2-16D TRUSS/CJ TO BRACE PLYWOOD PER SW SCHEDULE BALLOON FRAME WITH CONTINUOUS

TOP PLATE ROOF TYPE, PITCH, & EAVE PER ARCHITECTURAL PLAN

ROOF-EXTERIOR SW @ GABLE

ROOF-INTERIOR SHEAR WALL PERPENDICULAR TO RAFTERS OR TRUSSES

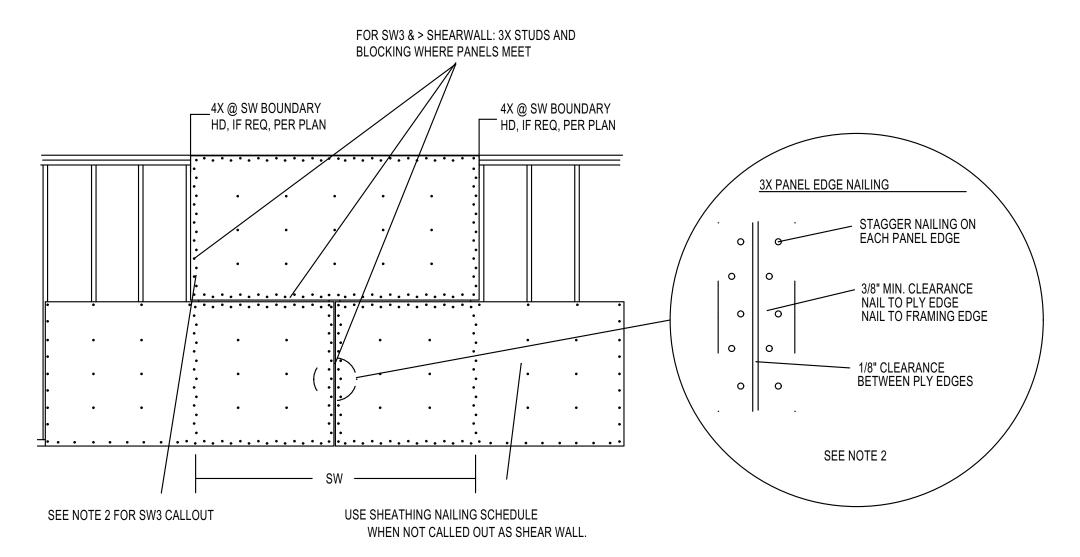
PLYWOOD PER SW SCHEDULE

CONNECTION PER SW SCHEDULE

CRIPPLE WALL BETWEEN CJ & RR PER SW SCHEDULE

CONTINUOUS DBL-TP

WALL PER SW SCHEDULE



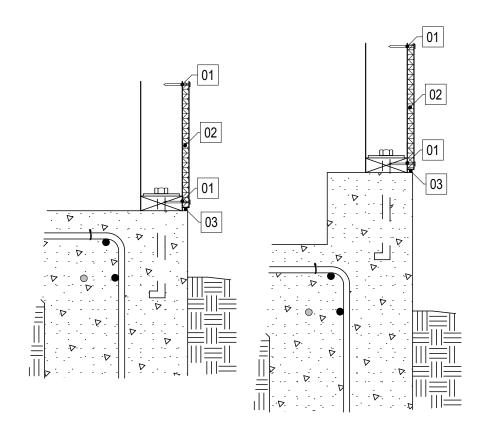
		1	ODAN	1	1		1	1	T			1
SYMBOL	PANEL GRADE	DEPTH	SPAN RATING	NAIL	EN & BN	FIELD	FRAMING	LTP4	A34	ANCHOR	NOTES	VPLF LRFD
SW1	STRUCT I	15/32	32/16	10d	6	12	2X	N/A	N/A	PP	3 - 9	217
SW2	STRUCTI	15/32	32/16	10d	6	12	2X	21" OC	16" OC	PP	3 - 9	490
SW3	STRUCT I	15/32	32/16	10d	4	12	3X	12" OC	9" OC	PP	1 - 9	816
SW4	STRUCT I	15/32	32/16	10d	3	12	3X	10" OC	8" OC	PP	1 - 9	1064
SW5	STRUCT I	15/32	32/16	10d	2	12	3X	6" OC	N/A	PP	1 - 9	1392
ROOF SHEATHING	SHEATHING	15/32	32/16	10d	6	12	PP	N/A	N/A	N/A	5 - 8	N/A
SHEATHING	SHEATHING	15/32	32/16	10d	6	12	2X	NA	NA	72" OC	4 - 10	N/A
SUBFLOOR	I-LEVEL EDGE GOLD	19/32	20	10d	6	12	PP	N/A	N/A	N/A	5 - 8, 11	N/A
SUBFLOOR	I-LEVEL EDGE GOLD	7/8	32	10d	6	12	PP	N/A	N/A	N/A	5 - 8, 11	N/A

- J BE 3X OR 2-2X (10D @ 12 OC FACE NAIL EACH SIDE)
- STAGGER NAILS ON EACH PANEL EDGE & SW BOUNDARY ALL PANEL EDGES TO BE BLOCKED
- MOUNT PANELS HORIZONTALLY OR VERTICALLY PROVIDE 1/8" GAP BETWEEN PANEL EDGES
- EDGE NAILS TO BE 3/8" MIN. FROM PANEL EDGES
- NAIL PENETRATION INTO FRAMING TO BE MIN 1-5/8" NAIL DIAMETERS DEFINED AS: 6D (0.099), 8D (0.131), 10D (0.148), 16D (0.162), 20D (0.192)
- REFER TO CONC-ANCHORS & SILL PLATE FOR ANCHOR BOLT DETAILS
- UNO, ALL EXTERIOR WALLS NOT SPECIFICALLY CALLED OUT AS "SW#" TO BE SHEATHED PER SHEATHING REQ 19/32" PLY FOR JOISTS @ 16 OC. 7/8" PLY FOR JOISTS > 16 OC. APPLY ADHESIVE @ JOIST/PLYWOOD JOINT

GENERAL NOTES -

- UNO, ALL EXTERIOR WALLS TO BE SHEATHED. WALLS NOT EXPRESSLY IDENTIFIED AS SHEAR WALLS TO BE SHEATHED PER 'SHEATHING"
- CALLOUT IN TABLE ABOVE. SEE 'FRMNG-NAILING SCHEDULE' & 'FRMNG-WALL CONDITIONS' FOR TYPICAL CONNECTIONS
- SHEAR WALLS SHALL RUN CONTINUOUSLY FROM FOUNDATION TO ROOF FRAMING PROVIDE ONE PLY CLIP BETWEEN EACH JOIST AT ALL UNBLOCKED EDGES OF ROOF & FLOOR PLYWOOD SHEATHING T&G PLYWOOD MAY BE
- USED THROUGHOUT AS AN ALTERNATE TO USING PLYCLIPS 54 WHERE JOISTS OR RAFTER SPACING EXCEEDS 24", PROVIDE T&G PLYWOOD OR BLOCK ALL EDGES WITH 2X4 FLAT WITH SIMPSON "Z" CLIP
- MINIMUM DIMENSION OF ANY PLYWOOD SHEET IS TO BE 24" AND THE MINIMUM AREA IS TO BE 8 SQUARE FEET.
- SMALLER DIMENSIONED SHEETS MAY BE USED ONLY IF ALL EDGES ARE SOLID BLOCKED AND EDGE NAILED MACHINE NAILING TOOLS USED FOR DIAPHRAGM AND SHEAR WALL SHEATHING ATTACHMENT MUST HAVE ADJUSTABLE DEPTH CONTROL FEATURES. NAILS SHALL NOT PENETRATE THE OUTER PLYWOOD PLY MORE SO THAN IF THE NAIL WAS INSTALLED WITH A HAMMER. IF MORE THAN 20% OF THE NAILS AROUND THE PERIMETER OF ANY PANEL ARE OVER-DRIVEN BY UP TO 1/8", ONE NEW NAIL FOR EVERY TWO OVER-DRIVEN NAILS SHALL BE ADDED (REPAIR PER APA REPORT NO. T94-9). ANY TWO NAILS OVER-DRIVEN BY MORE THAN 1/8" SHALL HAVE AN ADDITIONAL NAIL ADDED. USE HILTI PNEUMATIC NAILS (ICBO REPORT #NER 230), OR HALSTEEL PNEUMATIC NAILS (ICBO REPORT #4296) WITH THE APPROPRIATE GUN AS RECOMMENDED IN THE ICBO REPORT.





GENERAL NOTES -

51 NAILS INTO TREATED LUMBER TO BE RATED FOR USE (ASTM A153, CLASS D)

KEYNOTES -

01 FIELD NAILING & EDGE NAILING PER SW SCHEDULE. NAILS INTO TREATED LUMBER TO BE RATED FOR USE (ASTM A153, CLASS D)

MIN CLR BETWEEN PLYWOOD & FOUNDATION WITH 3X SILL PLATE

PLYWOOD PER SW SCHEDULE 1/8" MIN CLR BETWEEN PLYWOOD & FOUNDATION WITH 2X SILL PLATE. 1/4"

SLAB ON GRADE FOUNDATION-SW @ SILL PLATE

design services, Il

1825 STATE STREET STE 102

E: INFO@WINDWARDENG.COM

SANTA BARBARA, CA 93109

SANTA BARBARA, CA 93109

G-001 GENERAL AND SITE PLAN

G-002 ENERGY ANALYSIS

G-003 ENERGY ANALYSIS

G-004 GREEN CODE

G-005 GENERAL NOTES

A-101 PLAN ELEV SECT

S-101 FOUNDATION/ 1ST STORY FRAMING PLAN

S-501 CONCRETE DETAILS S-502 CONCRETE DETAILS S-503 FRAMING DETAILS

S-504 FRAMING DETAILS

S-505 FRAMING DETAILS

P-101 PLUMBING PLAN M-101 MECH PLAN

S-506 SW & SHEATHING DETAILS

A-601 SCHEDULES S-001 GENERAL

SHEET INDEX

SANTA BARBARA, CA 93101

T: 805.845.6601

PROJECT

221 LA PLATA

CLIENT

221 LA PLATA

DAVID MARCHETTI

MARCHETTI ADU

moving forward

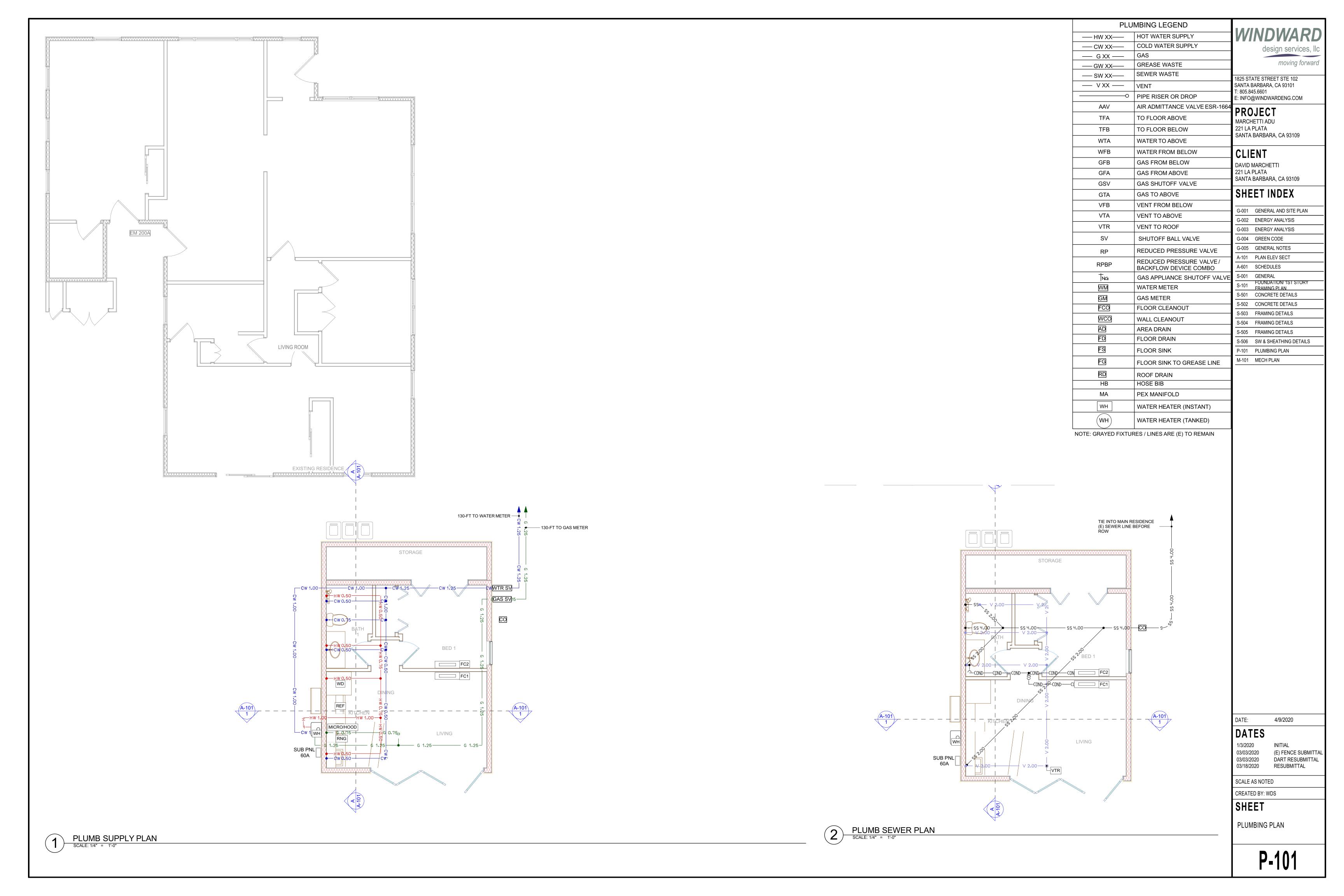
1/3/2020 03/03/2020 (E) FENCE SUBMITTA 03/03/2020 DART RESUBMITTAL 03/18/2020 RESUBMITTAL

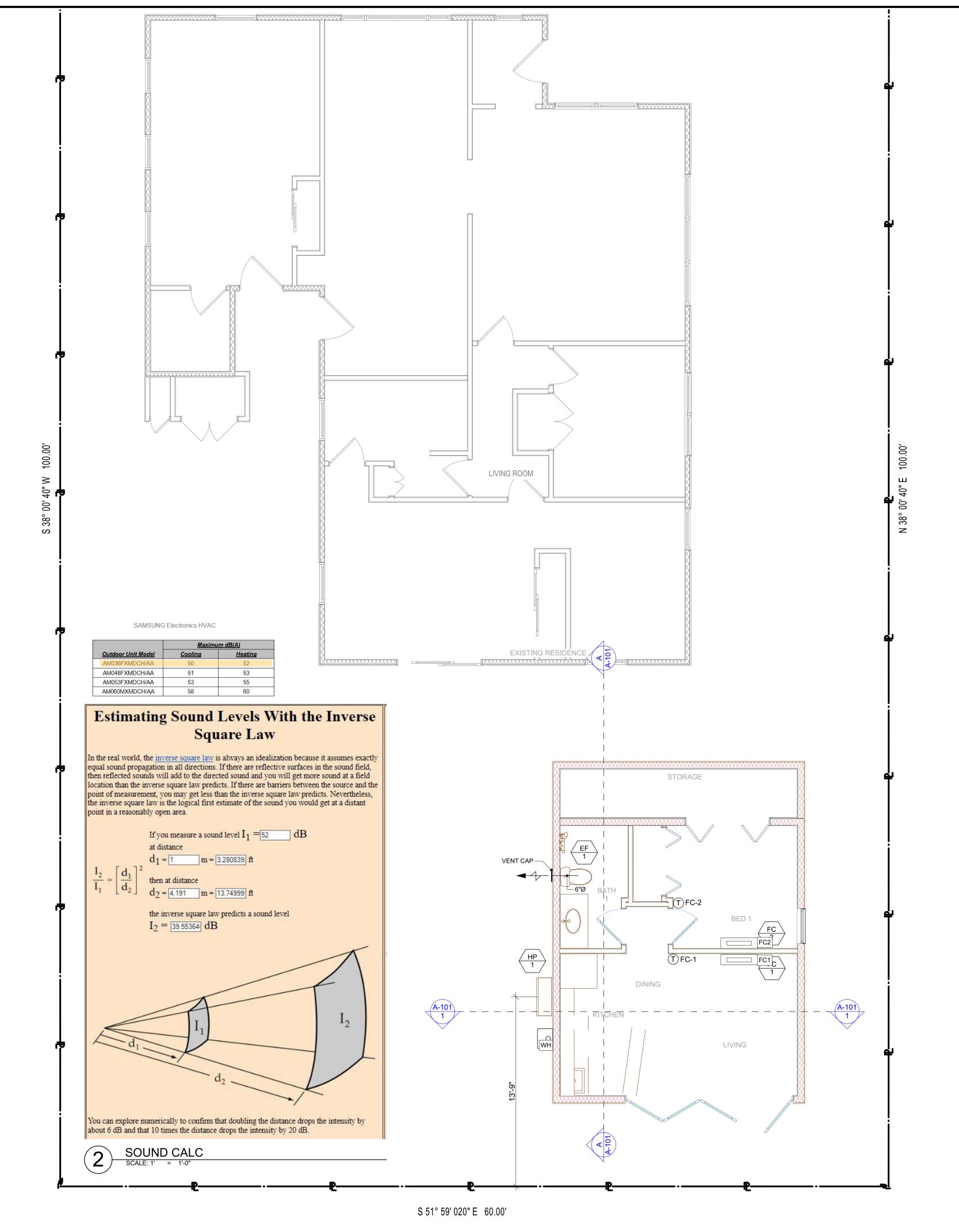
SCALE AS NOTED

CREATED BY: WDS

SHEET

SW & SHEATHING DETAILS





GENERAL AIR CONDITIONING NOTES

DISCREPANCY TO ARCHITECT OR ENGINEER FOR DIRECTION.

TO COMPLETING ABOVE TASK TO IDENTIFY AND RESOLVE CONFLICTS.

FABRICATE ALL DUCTS PER 2017 CALIFORNIA MECHANICAL CODE.

APPROVED RECEPTOR.

HVAC CONTRACTOR SHALL VISIT THE JOB SITE PRIOR TO BID TO SEE THE EXISTING CONDITIONS AND TO VERIFY THE

FEASIBILITY OF WHAT IS SHOWN ON PLANS AND EXTENT OF DEMOLITION WORK REQUIRED. SUBMITTED BID SHALL

INCLUDE ALL MATERIAL AND LABOR NECESSARY FOR A COMPLETE INSTALLATION AND START UP, INCLUDING ONE

YEAR LABOR AND MATERIAL WARRANTY. VERIFY EXACT LOCATIONS OF EXISTING EQUIPMENT AND MECHANICAL

COMPONENTS SHOWN ON THIS SET OF DRAWINGS BEFORE COMMENCEMENT OF WORK AND REPORT ANY

1. PRIOR TO START OF ALL WORK, HVAC, PLUMBING, ELECTRICAL & FIRE SPRINKLER CONTRACTORS SHALL: PREPARE

PROVIDE TURNIN5 VANES IN ALL 90° ELBOW SUPPLY AND RETURN AIR DUCTS, UNLESS NOTED OTHERWISE

PLUMBING CONTRACTOR TO PROVIDE CONDENSATE DRAIN PIPE COPPER TYPE "M" WITH 4" DEEP TRAP TO

CONTRACTOR SHALL ISSUE A RECORD SET OF "AS-BUILT" PLANS SHOWING ACTUAL INSTALLED WORK AND

EQUIPMENT LOCATIONS PLUS ALL DOOR AND PANEL LOCATIONS, AND PROVIDE TO ARCHITECT BEFORE END OF

5. ALL HVAC EQUIPMENT AND DUCTS SHALL BE INSTALLED PER "SMACNA" SEISMIC RESTRAINT INSTALLATION

ALL COMBUSTIBLE MATERIALS SHALL HAVE A FLAME SPREAD < 25, SMOKE SPREAD < 50.

THERMOSTATS ARE TO BE LOCATED BETWEEN 3' AND 4' ABOVE FINISH FLOOR. CONTRACTOR IS RESPONSIBLE TO VERIFY EQUIPMENT VOLTAGE PRIOR TO ORDER.

SHOP DRAWINGS & SUBMIT TO GC FOR APPROVAL. IN ADDITION, THESE SHOP DRAWINGS SHOULD BE COORDINATED

BETWEEN THESE CONTRACTORS IN FORM OF OVERLAY MEP LAYOUT TO IDENTIFY CONFLICTS PRIOR TO START OF

PROJECT. PROVIDE COPIES OF ALL SHOP DRAWINGS TO ARCHITECT FOR APPROVAL. DO NOT START WORK PRIOR

MITSUBISHI MODEL # NTXMMX20A122AA 208 V, 1 PHASE COOLING CAPACITY= 1.5 TON SEER=20.7 HEATING CAPACITY= 15.5 MBH HSPF = 10.0 MCA=17.2 MAX. CIRCUIT BREAKER=20 APPROXIMATE OPERATING WEIGHT = 126. LB.

HORIZONTAL FAN-COIL UNIT COOLING CAPACITY=12. MBH

HEATING CAPACITY=14.4 MBH AT 47 F AMB. 364 CFM AT 0.4" ESP, HIGH SPEED, 0.76 AMPS. MCA=1 APPROXIMATE OPERATING WEIGHT=22. LB.

MITSUBISHI MODEL # NTXWST06A112A 208 V, 1 PHASE COOLING CAPACITY= 6. MBH. HEATING CAPACITY=7.2 MBH 201 CFM AT 0.4" ESP, MEDIUM SPEED 0.76 AMPS. MCA=1 MICROBLUE DIAMOND MINI CONDENSATE PUMP. WALL MOUNTED THERMOSTAT.

APPROXIMATE OPERATING WEIGHT= 20. LB.

EQUIPMENT SCHEDULE

OUTDOOR SPLI SYSTEM HEAT-PUMP UNIT

→ MITSUBISHI MODEL # NTXWST12A112A 208 V, 1 PHASE MICROBLUE DIAMOND MINI CONDENSATE PUMP. WALL MOUNTED

WALL MOUNTED FAN-COIL UNIT

APPROXIMATE OPERATING WEIGHT=22 LB.

BATHROOM TOILET EXHAUST FAN PANASONIC MODEL # FV-11-15-VKLI WITH BACK DRAFT DAMPER 90 CFM AT 0.35" SP, 914 RPM, 0.15 AMPS. ENERGYSTAR. OPERATE WITH HUMIDISTAT PER TITLE 24 REQUIREMENT.

AIR CONDITIONING LEGEND

SYMBOL	DESCRIPTION
12x12 500	CEILING DIFFUSER, NECK SIZE, IN. Ø AIR QUANTITY CFM
	SOLID LINE DENOTES NEW DUCTWORK
	DASHED LINE DENOTES EXISTING DUCTWORK TO REMAIN.
/////////	CROSS-HATCHED LINE DENOTES EXISTING DUCTWORK TO BE REMOVED.
	SUPPLY AIR DUCT.
	RETURN AIR DUCT.
	EXHAUST AIR DUCT.
	DOUBLE THICKNESS TURNING VANES
	CEILING DIFFUSER
	RETURN AIR GRILLE, RELIEF GRILLE
	EXHAUST GRILLE
√ FD	CEILING MOUNTED FIRE DAMPER
FD >	WALL MOUNTED FIRE DAMPER
SFD	MOTORIZED COMBINATION/SMOKE FIRE DAMPER
MVD	MANUAL VOLUME DAMPER
O RVD	REMOTELY ACTUATED MANUAL VOLUME DAMPER
MD	MOTORIZED DAMPER
2 12 X 6	DUCT (FIRST DIMENSION IS SIDE SHOWN).
12 X 6 (L)	LINED DUCT (SHEET METAL SIZE SHOWN).
SD	DUCT SMOKE DETECTOR
T	THERMOSTAT (MOUNT AT +42 IN. ABOVE FLOOR).
<u> </u>	CO2 SENSOR (FOR DEMAND CONTROL VENTILATION)
•	POINT OF CONNECTION FROM EXISTING DUCTWORK TO NEW DUCTWORK
S.A.	SUPPLY AIR
R.A.	RETURN AIR
E.A.	EXHAUST AIR
O.S.A.	OUTSIDE AIR
C.D.	CEILING DIFFUSER
R.A.G. R.G.	RETURN AIR GRILLE, RELIEF GRILLE
E.G.	EXHAUST GRILLE

T-24 INSULATION NOTES

PORTIONS OF SUPPLY AIR AND RETURN AIR DUCTS CONVEYING HEATED OR COOLED AIR LOCATED IN ONE OR MORE OF THE FOLLOWING SPACES SHALL BE INSULATED TO A MINIMUM INSTALLED LEVEL OF R-8:

- OUTDOORS, OR - IN A SPACE BETWEEN THE ROOF AND AN INSULATED CEILING, OR

- IN A SPACE DIRECTLY UNDER A ROOF WITH FIXED VENTS OR OPENINGS TO THE OUTSIDE OR UNCONDITIONED SPACES, OR

- IN AN UNCONDITIONED CRAWLSPACE; OR - IN OTHER UNCONDITIONED SPACES.

PORTIONS OF SUPPLY AIR DUCTS THAT ARE NOT IN ONE OF THESE SPACES SHALL BE INSULATED TO A MINIMUM INSTALLED LEVEL OF R-4.2 (OR ANY HIGHER LEVEL REQUIRED BY C.M.C. SECTION 605, OR BE ENCLOSED IN DIRECTLY CONDITIONED SPACE. C.M.C. INSULATION REQUIREMENTS ARE REPRODUCED IN

TABLE 4-4. THE FOLLOWING ARE ALSO REQUIRED: - MECHANICALLY FASTEN CONNECTIONS BETWEEN METAL DUCTS AND THE INNER CORE OF FLEXIBLE DUCTS. - SEAL OPENINGS WITH MASTIC, TAPE, AROBAL SEALANT OR OTHER DUCT CLOSURE SYSTEM THAT MEETS THE

APPLICABLE REQUIREMENTS OF UL 181, UL 181A, UL 181B OR UL 723 (AROBAL SEALANT). - WHEN MASTIC OR TAPE IS USED TO SEAL OPENINGS GREATER THAN 1/4", A COMBINATION OF MASTIC & MESH OR MASTIC & TAPE MUST BE USED.

CAL GREEN & OTHER TESTING NOTES

MECHANICAL & PLUMBING SYSTEM DESCRIPTION:

1. ACCEPTANCE TESTS SHOWN ON TITLE 24 FORMS

TYPE 1 HOOD SYSTEM SHALL BE TESTED AND APPROVED BY AHJ . HVAC SYSTEMS AND CONTROLS SHALL COMPLY WITH ONE OF THE FOLLOWING STANDARDS: TABB'S CONSTRUCTION SPECIFICATIONS INSTITUTE MASTER FORMAT (SECTIONS 23 05 93 AND 15990), OR NEBB'S STANDARDS FOR TESTING, ADJUSTMENT, AND BALANCING OF ENVIRONMENTAL SYSTEMS (7TH EDITION), OR AABC'S NATIONAL STANDARDS FOR TOTAL SYSTEMS BALANCE (6TH EDITION), OR ASHRAE STANDARD III-2008

1. PRESSURE TESTS FOR ALL PIPING PER 2010 CPC: DOMESTIC WATER SYSTEM: PER SECTION 609.4 OF 2010 CPC

SANITARY WASTE & VENT SYSTEM: PER SECTION 712.0 OF 2010 CPC GAS PIPING SYSTEM: PER SECTION 1214.3 OF 2010 CPC

2. START, FULL LOAD CONSUMPTION AND TEMPERATURE CONTROL TEST FOR THE WATER HEATERS, AND PUMPS 3. SEISMIC RESTRAINT INSTALLATION

APPROVAL:

1. A FINAL REPORT FOR TESTING & ADJUSTING OF ALL NEW SYSTEMS SHALL BE COMPLETED PRIOR TO FINAL APPROVAL BY THE FIELD. THIS REPORT SHALL BE SIGNED BY THE INDIVIDUAL RESPONSIBLE FOR PERFORMING 2. AN OPERATION & SYSTEMS MANUAL SHALL BE PROVIDED TO THE OWNER OR REPRESENTATIVE AND TO THE FIELD INSPECTOR AT THE TIME OF FINAL INSPECTION

THE INDICATED SIZE OF ALL LINED DUCTS IS SHEET METAL DIMENSION

1825 STATE STREET STE 102

E: INFO@WINDWARDENG.COM

SANTA BARBARA, CA 93109

SANTA BARBARA, CA 93109

G-001 GENERAL AND SITE PLAN

SHEET INDEX

SANTA BARBARA, CA 93101

T: 805.845.6601

PROJECT

221 LA PLATA

CLIENT

221 LA PLATA

DAVID MARCHETTI

MARCHETTI ADU

moving forward

G-002 ENERGY ANALYSIS G-003 ENERGY ANALYSIS G-004 GREEN CODE G-005 GENERAL NOTES A-101 PLAN ELEV SECT A-601 SCHEDULES S-001 GENERAL S-101 FOUNDATION/ 1ST STORY FRAMING PLAN S-501 CONCRETE DETAILS S-502 CONCRETE DETAILS S-503 FRAMING DETAILS S-504 FRAMING DETAILS S-505 FRAMING DETAILS S-506 SW & SHEATHING DETAILS P-101 PLUMBING PLAN M-101 MECH PLAN

4/9/2020

DATES

1/3/2020 INITIAL 03/03/2020

(E) FENCE SUBMITTAL DART RESUBMITTAL 03/03/2020 03/18/2020 RESUBMITTAL

SCALE AS NOTED CREATED BY: WDS

SHEET

MECH PLAN

MECHANICAL PLAN 1ST-STORY